KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

(Sponsored by S.K.P.V.V. Hindu High Schools' Committee)

III SEMESTER END EXAMINATIONS OCT 2024 (Supplementary)

DATE	TIME	B.Sc								B.Voc.	B.Com				BBA	BCA
		M.P.C	M.P.CS	M.S.CS	M.E.CS	M.C.CS	CBZ	DATA SCIENCE	IOT		GEN	T.P	COMP	LOGISTICS		
14.10.2024 (Monday)	02.00 to 4.00 P.M	Environmental Education R20LSC304	Environmental Education R20LSC304	Environmental Education R20LSC304	Environmental Education R20LSC304	Environmental Education R20LSC304	Environmental Education R20LSC304	Environmental Education R20LSC304	Environmental Education R20LSC304	Environmental Education R20LSC304	Environmental Education R20LSC304	Environmental Education R20LSC304	Environmental Education R20LSC304	Environmental Education R20LSC304	Environmental Education R20LSC304	Environmental Education R20LSC304
15.10.2024 (Tuesday)	02.00 to 4.00 P.M	Analytical Skills R20LSC301	Analytical Skills R20LSC301	Analytical Skills R20LSC301	Analytical Skills R20LSC301	Analytical Skills R20LSC301	Analytical Skills R20LSC301	Analytical Skills R20LSC301	Analytical Skills R20LSC301		Analytical Skills R20LSC301	Analytical Skills R20LSC301	Analytical Skills R20LSC301	Analytical Skills R20LSC301	Analytical Skills R20LSC301	Analytical Skills R20LSC301
16.10.2024 (Wednesday)	02.00 to 4.00 P.M	Environmental Audit R20SDC301C	Environmental Audit R20SDC301C	Environmental Audit R20SDC301C	Environmental Audit R20SDC301C	Environmental Audit R20SDC301C	Environmental Audit R20SDC301C	Environmental Audit R20SDC301C	Environmental Audit R20SDC301C		Retailing R20SDC302B	Retailing R20SDC302B	Retailing R20SDC302B	Retailing R20SDC302B	Retailing R20SDC302B	Retailing R20SDC302B
17.10.2024 (Thursday)	02.00 to 05.00 P.M.	A Course in Conversation Skills R20ENG301	A Course in Conversation Skills R20ENG301 R20ENG301A	A Course in Conversation Skills R20ENG301 R20ENG301A	A Course in Conversation Skills R20ENG301 R20ENG301A	A Course in Conversation Skills R20ENG301 R20ENG301A	A Course in Conversation Skills R20ENG301 R20ENG301A	A Course in Conversation Skills R20ENG301 R20ENG301A	A Course in Conversation Skills R20ENG301	A Course in Conversation Skills R20ENG301 R20ENG301A	A Course in Conversation Skills R20ENG301 R20ENG301A	A Course in Conversation Skills R20ENG301 R20ENG301A	A Course in Conversation Skills R20ENG301 R20ENG301A	A Course in Conversation Skills R20ENG301 R20ENG301A	A Course in Conversation Skills R20ENG301 R20ENG301A	A Course in Conversation Skills R20ENG301 R20ENG301A
18.10.2024 (Friday)	02.00 to 05.00 P.M.	General Telugu/ General Hindi R20TEL301/R20HIN301	General Telugu/ General Hindi R20TEL301/R20HIN301 R20TEL301A/R20HIN301A	General Telugu/ General Hindi R20TEL301/R20HIN301 R20TEL301A/R20HIN301A	General Telugu/ General Hindi R20TEL301/R20HIN301 R20TEL301A/R20HIN301A	General Telugu/ General Hindi R20TEL301/R20HIN301 R20TEL301A/R20HIN301A	General Telugu/ General Hindi R20TEL301/R20HIN301 R20TEL301A/R20HIN301A	General Telugu/ General Hindi R20TEL301/R20HIN301 R20TEL301A/R20HIN301A	General Telugu/ General Hindi R20TEL301/R20HIN301	*****	General Telugu/ General Hindi R20TEL301/R20HIN301 R20TEL301A/R20HIN301A	General Telugu/ General Hindi R20TEL301/R20HIN301 R20TEL301A/R20HIN301A	General Telugu/ General Hindi R20TEL301/R20HIN301 R20TEL301A/R20HIN301A	General Telugu/ General Hindi R20TEL301/R20HIN301 R20TEL301A/R20HIN301A	General Telugu/ General Hindi R20TEL301/R20HIN301 R20TEL301A/R20HIN301A	General Telugu/ General Hindi R20TEL301/R20HIN301 R20TEL301A/R20HIN301A
19.10.2024 (Saturday)	02.00 to 05.00 P.M.	Abstract Algebra R20MAT301	Abstract Algebra R20MAT301 R20MAT301A	Abstract Algebra R20MAT301 R20MAT301A	Abstract Algebra R20MAT301 R20MAT301A	Abstract Algebra R20MAT301 R20MAT301A	Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity R20BOT301 R20BOT301A	Data Mining and Data Analytics R20DSDD301 R20DSDD301A	Descriptive Statistics R20IOTSTAT301	Algebraic Solutions and Numerical Analysis R20WSMAT301 R20WSMAT301A	Advanced Accounting R20COM301 R20COM301A	Advanced Accounting R20COM301 R20COM301A	Advanced Accounting R20COM301 R20COM301A	Advanced Accounting R20COM301 R20COM301A	Organisation Behaviour R20BBA301 R20BBA301A	Accounting and Financial Management R20BCA301 R20BCA301A
21.10.2024 (Monday)	02.00 to 05.00 P.M.	Heat and Thermodynamics R20PHY301	Heat and Thermodynamics R20PHY301 R20PHY301A	Statistical Inference R20STAT301 R20STAT301A	Analog Circuits and Communication R20ELE301 R20ELE301A	*****	Cell Biology, Genetics, Molecular Biology and Evolution R20ZOO301 R20ZOO301A	Statistical Inference R20DSSTAT301 R20DSSTAT301A	Digital Electronics R20IOTELE301	E-Commerce R20WSEC302 R20WSEC302A	Business Statistics R20COM302 R20COM302A	Business Statistics R20COM302 R20COM302A	Business Statistics R20COM302 R20COM302A	Business Statistics R20COM302 R20COM302A	Human Resource Management R20BBA302 R20BBA302A	Object Oriented Programming through Java R20BCA302 R20BCA302A
22.10.2024 (Tuesday)	02.00 to 05.00 P.M.	*****	Data Base Management Systems R20CSC301 R20CSC301A	Data Base Management Systems R20CSC301 R20CSC301A	Data Base Management Systems R20CSC301 R20CSC301A	Data Base Management Systems R20CSC301 R20CSC301A	*****	OOPS with Java R20DSOJ301 R20DSOJ301A	OOPS with Python R20IOTOP301	Programming in Java R20WSPJ301 R20WSPJ301A	Marketing R20COMG303 R20COMG303A	Indian Banking System R20COMT303 R20COMT303A	Programming with C & C++ R20COMC203 R20COMC303A	Material Management R20COML303 R20COML303A	Financial Management R20BBA303 R20BBA303A	Operating Systems R20BCA303 R20BCA303A
23.10.2024 (Wednesday)	02.00 to 05.00 P.M.	Organic Chemistry and Spectroscopy R20CHE301	*****	*****	*****	Organic Chemistry and Spectroscopy R20CHE301 R20CHE301A	Organic Chemistry and Spectroscopy R20CHE301 R20CHE301A	*****	*****	Advanced Angular JS R20WSAAJ303 R20WSAAJ303A	*****	*****	*****	*****	*****	*****

25/9/2024

Controller of Examinations

22/10/24

Principal

Room No: _____ **Regd No:** _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II Degree (All Groups)	Max Marks	: 60
Subject	: English	Pass Mark	: 24
Title of Paper	: A Course in Conversational Skills	Duration	: 3 Hrs
Paper Code	: R20ENG301A	Time	: 2pm-5pm
W.E.F	: 2023-24	Date	: 17-10-2024

SECTION-A

I. Answer any FIVE of the following Questions: **5X4=20M**

1. What was the pledge that Jawaharlal Nehru wanted every citizen of India to take?

2. How do you greet people in formal, informal and semi formal ways?

3. What are the six Leadership traits that kalam talks about?

4. Give step by step Instructions on how to prepare two cups of tea?

5. How do we ask for information? Mention any three contexts.

6. How does Steve Jobs inspire the students of Stanford University through his speech?

7. Give a clear description on the process of creating a Gmail account.

8. Develop a dialogue between two friends on the choice of their career.

SECTION-B

II. Answer the following Questions: **5X8=40M**

9. What according to author freedom and power brings in "Tryst with Destiny"

(OR)

10. Introduce a chief guest, a famous personality, on your college Day celebrations of your college. (Mention his/her education, awards won, positions held, future aspirations)

11. What are Obama's views on the future of American's?

(OR)

12. Define requests. Mention any three contexts of requests with example (making requests, agreeing requests, declining requests).

13. What is Nelson Mandela's view on anger and revenge?

(OR)

14. Develop a conversation between two friends on agreeing and disagreeing about their vacation plan.

15. What according to JRD Tata, are the factors that increase corruption?

(OR)

16. Write a dialogue between a Mr. Shushi and a customer service representative complaining about the extra electricity bill.

17. What is Debate? Discuss the stages in Debate.

(OR)

18. Write about the importance of Role Play? How can you make a role play activity more effective?

Regd No:_____ **Room No:**_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
III SEMESTER END EXAMINATIONS

Class	: II Degree (ALL GROUPS)	Max Marks	: 75
Subject	: English	Pass Mark	: 30
Title of Paper	: A course in Conversational skills	Duration	: 3 Hrs
Paper Code	: R20ENG301	Paper Time	: 2pm - 5pm
W.E.F	: 2021-22	Date	: 17-10-2024

SECTION – A

I. Answer any FIVE Of the following questions: **5X5=25M**

1. What is the central theme of the lesson Tryst with Destiny?
2. Describe the significance of Greetings.
3. Explain the response of Dr. APJ Abdul Kalam on "A leader should know how to Manage a failure"
4. How do we ask for information? Mention any three contexts?
5. How do you give directions to your friend to reach your College from Railway Station?
6. What is the tone of Steve Jobs speech at Stanford University?
7. Give a clear description of your Village / Town in about 75 words.
8. What are the three favourite interviewing techniques?

SECTION –B

II. Answer ALL the following Questions: **5X10=50M**

9. What according to Pandit Nehru was the tryst with destiny that Indians made?

(OR)

10. How do you introduce your team members to the Chief Guest?

11. Give an analysis of the leadership style of President Obama.

(OR)

12. How do we make request ? Mention any five different contexts.

13. What does Nehru mean by his remark that freedom and power brings responsibility?

(OR)

14. What is the pleasure in agreeing for a deal?

15. What questions would you ask Ratan Tata?

(OR)

16. Build dialogue between a Ticket Collector and a Passenger in the train.

17. Describe the basic debate skills.

(OR)

18. Explain different methods of Role Play.

Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II Degree (All Groups)	Max Marks	: 60
Subject	: Telugu	Pass Mark	: 24
Title of Paper	: General Telugu	Duration	: 3 Hrs
Paper Code	: R20TEL301A	Time	: 2pm – 5pm
W.E.F	: 2023-24	Date	: 18|10|2024

విభాగము – అ

1. ఈ క్రింది వానిలో ఏవైనా ఐదింటికి సంక్షిప్త సమాధానాలు వ్రాయండి? 5×4=20 మా

1. భాష ప్రయోజనం
2. వాక్య భేదాలు
3. రేడియో రచన
4. వార్త నిర్వచనం
5. వ్యాసం
6. వివిధ రకాల పత్రికలు
7. మాధ్యమము నిర్వచించండి
8. We all know that the language is different in so far as literature is concerned and the day to day speech is concerned. Even in the colloquial speech, there are differ ences in different regions. The speech of ever districts vary.

విభాగము – ఆ

2. ఈ క్రింది వానిలో ఏవైనా ఐదింటికి సంక్షిప్త సమాధానాలు వ్రాయండి? 5×8=40 మా

9. భాషా నిర్మాణంలో వర్ణ – పదం – వాక్యముల ప్రాధాన్యతను వివరించండి?

(లేదా)

10. భాషను నిర్వచించి, భాషా లక్షణాలను తెలుపండి?
11. ఉత్తమ కవితా లక్షణాలను వివరించండి?

(లేదా)

12. వ్యాసమును నిర్వచించి, వ్యాస లక్షణాలు తెలియజేయండి?
13. అనువాదమును నిర్వచించి, అనువాద సమస్యలను తెలుపండి?

(లేదా)

14. అనువాద పద్ధతులను గురించి వివరంగా తెలుపండి?
15. వివిధరకాల పత్రికలను గూర్చి వ్రాయండి?

(లేదా)

16. పత్రికా రచన గురించి తెలియజేయండి?
17. ప్రసార మాధ్యమాల విస్తృతి, ప్రయోజనాలను వివరించండి?

(లేదా)

18. రేడియోను పరిచయం చేసి, రేడియో రచనను గూర్చి తెలుపండి.

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS
III – SEMESTER END EXAMINATIONS

Class	: II Degree (All Groups)	Max Marks	: 75
Subject	: Telugu	Pass Mark	: 30
Title of Paper	: General Telugu	Duration	: 3 Hrs
Paper Code	: R20TEL301	Time	: 2pm – 5pm
W.E.F	: 2021-22	Date	: 18/10/2024.

విభాగము - అ

I. ఈ క్రింది వానిలో ఏవైనా ఐదింటికి సంక్షిప్త సమాధానాలు వ్రాయుము **5X5=25మా**

1. భాష ప్రయోజనాలు **2.** ప్రతిభ విశిష్టతను తెలపండి

3. చారిత్రక వ్యాసాలు **4.** అనువాదంలో భౌగోళిక సమస్యలు - పరిష్కార మార్గాలు

5. వార్తా రచనలోని పద్ధతులు తెలపండి **6.** పత్రికలలోని భాష ఎలా ఉండాలి

7. యాంకరింగ్ లక్షణాలు **8.** క్రింది అంశమును తెలుగులోకి అనువదించండి.

Soft skills refer play a vital role in the success of an organization Soft Skills are so important as traditional hand Skills, At the same time hard Skills cannot be replaced with soft skills. Soft skills Cannot be taught. However they can be achieved through proper training.

విభాగము - ఆ

II. ఈ క్రింది వానిలో అన్ని ప్రశ్నలకు సమాధానములు వ్రాయుము **5X10=50 మా**

9. భాషా నిర్మాణములో వర్ణం - పదం - వాక్యాల ప్రాధాన్యతను వివరించండి

(లేదా)

10. వాక్య భేదాలను సమగ్రంగా చర్చించండి.

11. ఉత్తమ కవిత్వ లక్షణాలను వ్రాయండి

(లేదా)

12. ఉత్తమ వ్యాస లక్షణాలను వ్రాయండి

13. అనువాదాన్ని నిర్వచించి అనువాద పద్ధతులను వ్రాయండి.

(లేదా)

14. ముద్రణా మాధ్యమం పరిధి వికాసాలను పేర్కొనండి

15. తెలుగు భాషలో పత్రికల వర్గీకరణ వ్రాయండి

(లేదా)

16. వార్తను నిర్వచించి వార్త లక్షణాలను తెలపండి.

17. ప్రసారమాధ్యమాల విస్తృతి, ప్రయోజనాలు తెలుపండి

(లేదా)

18. యాంకరింగ్ నిర్వహణ తీరు తెన్నులను వివరించండి

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II Degree (All Groups)	Max Marks	: 60
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Title of Paper	: General Hindi	Duration	: 3 Hrs
Paper Code	: R20HIN301A	Time	: 2pm – 5pm
W.E.F	: 2023-24	Date	: 18|10|2024

SECTION-A

అ. निम्न लिखित प्रशनों में से किन्ही पांच का उत्तर दीजिए। 5 X 4 = 20 M

1. किसी एक कवि का जीवन परिचय दीजिए।

   1. सूरदास 2. भवानी प्रसाद मिश्र

2. " तोड़ती पत्तर" कविता का सारांश लिखिए

3. भक्तिकाल की विशेषताऐं लिखिए।

4. ज्ञापना की परिभाषा दीजिए।

5. अनुवाद किसे करते है।

6. व्याख्या कीजिए

   पाहन पूजे हरी मिलै, तो मै पूजूँ पहाड़।

   ताते ये चाकी भली , पीस खाय संसार।।

7. व्याख्या कीजिए

   जी गीत जनम का लिखूँ, मरण का लिखूँ।

   जी, गीत जीत का लिखूँ, शरण का लिखूँ ।।

8. पर्यावरण और प्रदूषण पर निभांध लिखिए।

SECTION-B

5 X 8 = 40 M

9. किसी एक कविता का सारांश विशेषताओं सहित लिखिए।

   (अ) तोड़ती पत्थर (आ) गीत फरोश

10. (अ) भक्तिकाल की विशेषताएँ प्रस्तुत कीजिए।

    अथवा

    (आ) ज्ञनाश्रई शाखा में कबीर का स्थान निर्धारित कीजिए।

11. किसी एक निबंध पर प्रकाश डालिए।

    (A) कम्प्यूटर (B) समाचारपत्र (C) साहित्य और समाज

SECTION-B

12. हिन्दी में अनुवाद कीजिए।

1. Please turn off the light
2. Hurry up and wash your face
3. Where your pen
4. I have got a bit late today

(अथवा)

अंग्रेजी में अनुवाद कीजिए।

1. बच्चे रोज शतरंज खेलते हैं।
2. मेरे पहुंचने से पहले गाड़ी जा चुकी थी।
3. सुबह से बारिश हो रही है।
4. क्या बारिश हो रही है ?

13. किसी एक पर टिप्पणी लिखिए ।

1. परिपत्र 2. कार्यालय ज्ञापना 3. अधिसूचन

Room No. _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II Degree (All Groups)	Max Marks	: 75
Subject	: Hindi	Pass Mark	: 30
Title of Paper	: General Hindi	Duration	: 3 Hrs
Paper Code	: R20HIN301	Time	: 2pm – 5pm
W.E.F	: 2021-22	Date	: 18|10|2024

Part-A

(Short Answer Questions) 25 Marks

निम्न लिखित प्रश्नों में से किन्हीं पाँच प्रश्नों का उत्तर दीजिए

1. व्याख्या कीजिए

   पाहन पूजे हरि मिलै तो मैं पूजूँ पहाड
   ताते ये चाकी भाली पीस खाय संसार

2. किसी एक कवि का साहित्यक परिचय दीजिए

   1.कबीर 2. मैथिली शरण गुप्त

3. मातृभूमि कविता की विशेषताएँ लिखिए

4. व्याख्या कीजिए

   वह तोडती पत्थर
   इलहाबाद के पथ पर वह तोडती पत्थर
   नहीं छायादार पेड वहाँ

5. ज्ञानमार्ग शाखा की विशेषताएँ बताइए
6. प्रदूषण के निवारणोपाय लिखिए
7. अनुवाद किसे है
8. परिपत्र की परिभाषा दीजिए

Part-B

(Essay Questions)

9. किसी एक कविता का सारांश विशेषताओं सहित लिखिए 50 Marks

   1) मातृभूमि 2) तोडती पत्थर 10

10. हिन्दी साहित्य का इतिहास –काल विभाजन के बरे में लिखिए 10

    (अथवा)

    ज्ञानमार्ग शाखा मे कबीर के स्थान को लिखिए

11. किसी एक निबंध पर प्रकाश डालिए

    1. पर्यावरण और प्रदूषण 2. कंप्यूटर 3. बेकारी की समस्या 10

[P.T.O]

12. हिन्दी में अनुवाद कीजिए

1. India is our country
2. The rose is beautifull
3. Dipawali is the festival of lights
4. Where are you going
5. This is our college.

5X2=10

(अथवा)

अंग्रेजी में अनुवाद कीजिए

1. हिन्दी हमारी राष्ट्रभाषा हैं
2. हम कॉलेज जाते हैं
3. मानव सेवा ही माधव सेवा है
4. कल रविवार था
5. सरला नाचती है

13. किसी एक पर टिप्पणि लिखिए

1. परिपत्र 2. प्रयोजनमूलक हिन्दी 3. राष्ट्र-भाषा हिन्दी

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Mat)	Max Marks	: 60
Subject	: Mathematics	Pass Mark	: 24
Title of Paper	: Mathematical Special Functions And Problem Solving Sessions	Duration	: 3 Hrs
Paper Code	: R23MAT304	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. $\int_0^1 X^4\ (1-X)^3\ dx = \frac{1}{280}$

2. Prove that $\Gamma(\frac{1}{2}) = \sqrt{\pi}$.

3. State and prove that Rodrigues formula of $L_n(x)$

4. Prove that $2xH_n(x) = 2n\ H_{n-1}(x) + H_{n+1}(x)$.

5. Prove that if m < n then $\frac{dm}{dx^m}(H_n(x)) = \frac{2^m n!}{(n-m)!}H_{n-m}(x)$.

6. $(2n+1).x.p_n(x)=(n+1)p_{n+1}(x) + n.p_{n-1}(x)$

7. Show that $J_{1/2}(x) = \sqrt{\frac{2}{\pi x}}\sin x$.

8. Show that $x\ J'_n(x) = -n\ J_n(x) + x\ J_{n-1}(x)$.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Prove that $\beta(m, n) = \frac{\Gamma m\ \Gamma n}{\Gamma(m+n)}$.

(OR)

10. Show that (i) $\int_{-1}^{1} \frac{T_m(x)T_n(x)}{\sqrt{1-x^2}}dx = \begin{cases} 0 & , \quad if\ m \neq n \\ \frac{\pi}{2} & ,\ if\ m = n \neq 0 \\ \pi & ,\ if\ m = n = 0 \end{cases}$

(ii) $\int_{-1}^{1} \frac{U_m(x)U_n(x)}{\sqrt{1-x^2}}dx = \begin{cases} 0 & , \quad if\ m \neq n \\ \frac{\pi}{2} & ,\ if\ m = n \neq 0 \\ 0 & ,\ if\ m = n = 0 \end{cases}$

11. State and Prove that Orthogonal properties of $L_n(x)$

(OR)

12. State and Prove that Generating function of $L_n(x)$

[P.T.O]

13. State and prove that Rodrigues formula for Hermite Polynomials.

(OR)

14. State and Prove that Generating function of Hermit Polynomials.

15. Prove that $(1 - 2xh + h^2)^{-1/2} = \sum_{n=0}^{\infty} h^n P_n(x)$

(OR)

16. State and Prove Orthogonal properties of Legendre Polynomials for $P_n(X)$

17. Prove that $Y = a_0(1 - \frac{x^2}{2^2} + \frac{x^4}{2^2 4^2} - \frac{x^6}{2^2 4^2 6^2} + \ldots\ldots)$ is a solution of Bessel's differential equation for n = 0

(OR)

18. Show that i) $J_{-n}(x) = (-1)^n J_n(x)$ where n is a positive integer and

ii) $J_n(-x) = (-1)^n J_n(x)$ for positive or negative integers.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
III SEMESTER END EXAMINATIONS

Class	: II B.Sc. (MPC, MPCS, MECS, MSCS, MCCS)	Max Marks	: 75
Subject	: Maths	Pass Mark	: 30
Title of Paper	: Abstract Algebra	Duration	: 3 Hrs
Paper Code	: R20MAT301	Paper Time	: 2pm - 5pm
W.E.F	: 2021-22	Date	: 19.10.2024

SECTION – A

I. Answer any FIVE Of the following questions. **5X5=25M**

1. In a group G, for all $a \in G \ni a^2 = e$ then prove that (G,.) is an abelian group.
2. In a group G, prove that if $a \in G$ then $O(a) = O(a^{-1})$.
3. If H is any subgroup of a group G, then prove that HH= H.
4. Prove that every subgroup of an abelian group is normal.
5. If a is a generator of a cyclic group G, then prove that a^{-1} is also a generator of G.
6. Examine whether the permutation $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ 3 & 2 & 4 & 5 & 6 & 7 & 1 \end{pmatrix}$ is even or odd.
7. Prove that the intersection of two subrings of a ring R is a subring of R.
8. Prove that a field has no proper ideals.

SECTION –B

II. Answer ALL the following Questions. **5X10=50M**

9. Prove that the set of all integers forms an abelian group under the operation $*$ is defined by $a*b = a+b+2 \ \forall \ a, b \in Z$.

(OR)

10. Prove that a finite semi group G satisfying cancellation laws is a group.
11. Prove that the necessary and sufficient condition for a finite complex H of a group G is $a,b \in H \Rightarrow ab \in H$.

(OR)

12. State and prove Lagrange's theorem.
13. Prove that A subgroup H of a group G is a normal sub group of G iff each left coset of H in G is a right coset of H in G.

(OR)

14. State and prove fundamental theorem of homomorphisms of groups.
15. State and prove Cayley's theorem.

(OR)

16. Prove that every finite group of prime order is cyclic.
17. Prove that every finite integral domain is a field.

(OR)

18. If U_1 and U_2 are two ideals of a ring R then prove that $U_1 \cup U_2$ is an ideal of R iff either $U_1 \subseteq U_2$ or $U_2 \subseteq U_1$.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc (MPC,MPCS,MSCS,MCCS,MECS)	Max Marks	: 60
Subject	: Mathematics	Pass Mark	: 24
Title of Paper	: Abstract Algebra	Duration	: 3Hrs
Paper Code	: R20MAT301A	Time	: 2pm – 5pm
W.E.F	: 2022-23	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Prove that G is a group, for $a, b \epsilon G, (ab)^{-1} = b^{-1}a^{-1}$.
2. In a group G for every $a \epsilon G, a^2 = e$. Prove that G is an abelian group.
3. If H_1 and H_2 are two subgroup of a group G, then prove that $H_1 \cap H_2$ is also subgroup of a group G.
4. Prove that every subgroup an abelian group is normal.
5. Prove that the permutation $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ 3 & 2 & 4 & 5 & 6 & 7 & 1 \end{pmatrix}$.
6. Prove that every cyclic group is an abelian group.
7. Prove that every Boolean ring is an Abelian.
8. Prove that a field has no proper ideals.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Show that the set Q^+ of all positive rational numbers is an abelian group with respect to the operation "o" defined by $aob = \frac{ab}{3} \forall a, b \epsilon Q^+$.

(OR)

10. Prove that a finite semi group (G,.) satisfying the cancellation laws is a group.

11. If H and K are two subgroups of a group G, then Prove that HK is a subgroup of G iff HK = KH.

(OR)

12. State and prove Lagrange's theorem.

13. Prove that a subgroup H of a group is a normal subgroup of G iff each left cosets of H in G is a right coset of H in G.

(OR)

14. Prove that the necessary and sufficient condition for a homomorphism f of a group G onto a group G^1 with Kernel K to be an isomorphism of G into G^1 is that K={e}.
15. State and prove Cayley's theorem.

(OR)

16. If p is a prime number, then prove that every group of order p is a cycle group that is a group of prime order is cycle.
17. Prove that every finite integral domain is a field.

(OR)

18. If U_1 and U_2 are two ideals of a ring R then prove that $U_1 \cup U_2$ is an ideal of R iff

$U_1 \subseteq U_2$ or $U_2 \subseteq U_1$.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class : II B.Sc Honours (Mathematics) Max Marks : 60
Subject : Mathematics Pass Mark : 24
Title of Paper : **Numerical Methods & Problem Solving Sessions** Duration : 3 Hrs
Paper Code : R23MAT302 Time : 2pm - 5pm
W.E.F : 2024-25 Date : 17-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain different type of difference operators.

2. Given $u_0 = 3, u_1 = 12, u_2 = 81, u_3 = 200, u_4 = 100$ and $u_5 = 8$. Find $\Delta^5 u_0$.

3. Find the third divided difference of the function $f(x) = x^3 + x + 2$ for the arguments 1,3,6,11.

4. The value of x and y are given as below. Find the value of y when x = 10.

x	5	6	9	11
y	12	13	14	16

5. Using Gauss forward Interpolation formula, find f(25) given that f(20) = 14, $f(24) = 32, f(28) = 35, f(32) = 40$.

6. Find a real root of the equation $x^3 + x^2 - 1 = 0$, by iteration method.

7. Find a real root of the equation $x^2 - 3x + 2 = 0$, in the vicinity of x=0 by using Newton Raphson method .

8. Find the least square line y = a+bx for the data.

x	-2	-1	0	1	2
y	1	2	3	3	4

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Prove that (i) $\delta = E^{1/2} - E^{-1/2}$ (ii) $\mu = \frac{1}{2}(E^{1/2} - E^{-1/2})$

(iii) $E^{-1/2} = \mu - \frac{1}{2}\delta$ (iv) $E^{1/2} = \mu + \frac{1}{2}\delta$.

(OR)

10. Find the missing terms of the following data.

X	1	2	3	4	5	6	7	8
y	1	8	?	64	?	216	343	512

[P.T.O]

11. State and prove that Newton's – Gregory formula for forward interpolation with equal intervals.

(OR)

12. State and prove that Newton's divided difference formula.
13. Using Lagrange's Interpolation formula, find the value of y at x=301.

X	300	304	305	307
y	2.4771	2.4829	2.4843	2.4871

(OR)

14. State and prove Gauss forward formula for equal intervals.
15. Find a real root of the equation $x^3 - x - 11 = 0$, by Bisection method.

(OR)

16. Find a real root of the equation $f(x) = x^3 - 2x - 5 = 0$, by Regula – Falsi method
17. Fit a second degree parabola to the following data.

x	0	1	2	3	4
y	1	5	10	22	38

(OR)

18. Fit a curve $y = ax^b$ by the method of least curves using the following data.

x	61	26	7	2.6
y	350	400	500	600

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hon(Mat & Comp Science)	Max Marks	: 60
Subject	: Mathematics	Pass Mark	: 24
Title of Paper	: **Group Theory And Problem Solving Sessions**	Duration	: 3 Hrs
Paper Code	: R23MAT301/R23MMAT301	Time	: 2pm – 5pm
W.E.F	: 2024-25	Date	: 16-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Show that the cube roots of unity form an abelian group under multiplication.
2. In a group G, for all $a \in G$ then prove that $O(a) = O(a^{-1})$.
3. If H is any subgroup of a group G then prove that $H^{-1} = H$.
4. Prove that any two left (Right) cosets of a subgroup are either disjoint or identical.
5. Prove that the intersection of two normal subgroups of a group is a normal subgroup.
6. Prove that every homomorphic image of an abelian group is abelian.
7. If $f = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 \\ 5 & 3 & 2 & 4 & 1 \end{pmatrix}$, $g = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 \\ 4 & 3 & 1 & 2 & 5 \end{pmatrix}$ then find fg and gf.
8. If 'a' is a generator of a cyclic group G then prove that a^{-1} is also a generator of G.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. In a group G, for $a,b,x,y \in G$ then prove that the equations ax=b and ya=b have a unique solutions in G.

(OR)

10. Prove that the set of all integers forms an abelian group under the operation * defined by a*b=a+b+2 $\forall a,b \in Q$

11. State and prove Lagrange's theorem.

(OR)

12. If H and K are two subgroups of a group Gthen prove that Hk is a subgroup of G iff HK=KH.

13. Prove that A subgroup H of a group G is a normal subgroup of G iff each left coset of H in G is a right coset of H.

(OR)

14. If G is a group and H is a subgroup of index 2 in G then prove that H is a normal subgroup of G.

15. State and prove Fundamental theorem on Homomorphism of groups.

(OR)

16. Prove that the set of all automorphism of a group G forms a group with respect to compositions of mappings.

17. Prove that a group of prime order is cyclic

(OR)

18. State and prove Cayley's theorem.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II Degree (All Groups)	Max Marks	: 50
Subject	: Mathematics	Pass Mark	: 20
Title of Paper	: Analytical Skills	Duration	: 2 Hrs
Paper Code	: R20LSC301	Time	: 2 pm - 4 pm
W.E.F	: 2022-23	Date	: 15.10.2024

SECTION-A

I. Answer any TEN of the following Questions **10X2=20M**

1. Find the odd one out of the series – 3,5,7,12,17,19.
2. Simplify: 108/36 of ¼+ 2/5 X 3(1/4).
3. If a:b = 5:9 and b:c = 4:7 find a:b:c?
4. Express 56% and 4% as a fraction.
5. Find the missing number is the series.

   4,18, ___,100,180,294
6. Find the wrong number in the series 3, 10, 27, 4, 16, 64, 5, 25, 105
7. *if* $\frac{2x}{1+\frac{1}{1+\frac{x}{1-x}}}$ = 1, then find the value of x.
8. If x:y = 3:4, find (4x+5y):(5x-2y).
9. 986 X 307 – 986 X 207 = ?
10. Find the LCM of 28,35,56 and 84 ?
11. 1425+8560+(1680/200) = ?
12. Rajeev's age after 15 years will be 5 times his age 5 years back. What is the present age of Rajeev.
13. Find the day of week august 15th 1947?
14. A cyclist covers a distance of 750m in 2min 30 sec. what is the speed in km/hr of the cyclist.
15. Find the simple interest on Rs. 4000/- for 4 years of 5% per number?

SECTION-B

II. Answer any FIVE of the following Questions **5X6=30M**

16. Subject (maximum marks recorded out of 100)

Students	Hindi	English	Maths	Social	Science	Sanskrit	PES
Anupama	85	95	87	87	65	35	71
Bhaskar	72	97	55	77	62	41	64
Charu	64	78	74	63	55	25	33
Deepak	65	62	69	81	70	40	50
Garima	92	82	81	79	49	30	61
Vishal	55	70	65	69	44	28	30

[P.T.O]

a. How many students have scored lowest marks in two or more subjects?

b. Who has scored the higher marks in all the subjects together

c. What is the Deepak percentage of marks in all the subjects together

d. What is the average percentage of marks obtained by all the students together in science?

e. Marks obtained by Charu in Hindi is what percent marks the Anupama got in science * subject?

17. How many numbers between 11 and 90 are divisible by '7'?

18. What was the day of week on 16th April, 2000?

19. At what time between 2 and 3'0 clock will be hands of clock be together?

20. The average age of a class of 39 students is 15 years. if the age of the teacher be included, then the average increases by 3 months. Find the age of the teacher?

21. 6 years ago, the ratio of the ages of Kumar & Sagar was 6:5. Four year hence, the ratio of their ages will be 11:10. What is Sagar's age at present.

22. In how many years, Rs. 150 will produce the same interest 8% as Rs. 800 produce in 3 yrs 4 ½ %?

23. A, B and C started a business by investing Rs. 120000, Rs. 135000 and Rs. 150000 respectively. Find the share of each. Out of an annual profit of Rs. 56700.

24. A book was sold for Rs. 27.50 with a profit of 10% if it was sold for Rs. 25.75, then what would have been the percentage of profit or loss?

25. Explain BODMAS Rule ?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Voc (WT & SD)	Max Marks	: 60
Subject	: Mathematics	Pass Mark	: 24
Title of Paper	: Algebraic Solutions And Numerical Analysis	Duration	: 3 Hrs
Paper Code	: R20WSMAT301A	Time	: 02:00PM-05:00PM
W.E.F	: 2023-24	Date	: 19/10/2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Find the series of 2+8+14+20+.....then find 10th term and sum of 10 terms.

2. Find the 5th term of the series 4+12+36+.....

3. Evaluate $\lim_{x\to 3} \frac{x^3-6x^2+9x}{x^2-9}$

4. Find $\lim_{x\to 1} \frac{\sin(x-1)}{x^2-1}$

5. Prove that $i).\ \Delta-\nabla=\Delta\nabla \quad ii).\ \Delta+\nabla=\frac{\Delta}{\nabla}-\frac{\nabla}{\Delta}$

6. Construct a Backward difference table and find $\nabla^2 u_4$

X_I	1	2	3	4	5
U_I	2	5	10	20	30

7. Find the number of ways of arranging 3 Mathematics, 2 Physics and 1 Chemistry in a shelf, such that the books of same kind are together.

8. Prove that $25_{c_4} + \sum_{r=0}^{4}(29-r)_{c_3} = 30_{c_4}$

SECTION-B

II. Answer any ALL of the following Questions **5X8=40M**

9. If the 1st term of AP is 4 and 10th term of AP is 31. Find the sum of first 10 terms.

(OR)

10. The 6th term of GP is 1215 and 3rd term is 45. Find the sum of first 6 terms.

11. Evaluate $\lim_{x\to 0} \frac{\sqrt[3]{1+x}-\sqrt[3]{1-x}}{x}$

(OR)

12. Evaluate $\lim_{x\to 0} \frac{e^x-1}{\sqrt{1+x}-1}$

[P.T.O]

13. State and prove Newton-Gregory formula for backward interpolation with equal intervals.

(OR)

14. Estimate the population for the year 1925.

Year-x	1891	1901	1911	1921	1931
Population(y) Thousands	46	66	81	93	101

15. Apply Bessel's formula to obtain y_{25}, given $y_{20}=2854$, $y_{24}=3162$, $y_{28}=3544$, $y_{32}=3992$.

(OR)

16. Use Stirling formula to evaluate f(25) from the data:

17. Find the number of ways of arranging 6 boys and 6 girls. In how many of them.
i) All the girls are together. ii) No two girls are together
iii) Boys and girls come together.

(OR)

18. Find the rank of the word VICTORY by arranging the letters of the words in a dictionary order.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Mathematics)	Max Marks	: 60
Subject	: Mathematics	Pass Mark	: 24
Title of Paper	: **Laplace Transforms & Problem Solving Session**	Duration	: 3 Hrs
Paper Code	: R23MAT303	Time	: 2pm – 5pm
W.E.F	: 2024-25	Date	: 18/10/2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Find $L\{(5e^{2t}-3)^2\}$

2. Find $L\{\sinh^2 3t\}$

3. Find the Laplace transform of $L\{G(t)\}$, where $G(t) = \begin{cases} e^{(t-a)}, & t > a \\ 0, & t < a \end{cases}$

4. Find $L\{e^{-t}(3\sin 2t - 5\cosh 2t)\}$

5. Find $L\left\{\frac{1-e^t}{t}\right\}$

6. Evaluate $\int_0^\infty \frac{\sin t}{t} dt$

7. Find $L^{-1}\left\{\frac{3p-8}{4p^2+25}\right\}$

8. Find the inverse Laplace transform of $\log\left\{\frac{p+3}{p+2}\right\}$

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Find $L\{\cos^3 3t\}$

(OR)

10. Find the Laplace transform of the function $F(t) = \begin{cases} \sin t, & 0 < t < \pi \\ 0, & t > \pi \end{cases}$

11. State and prove Second shifting theorem.

(OR)

12. Find if $L\{F(t)\} = \frac{9p^2-12p+15}{(p-1)^3}$, find $L\{F(3t)\}$ and $L\{F(2t)\}$ by change of scale property.

13. Evaluate $L\{t\sin 3t \cos 2t\}$

(OR)

14. Find $L\left\{\frac{\cos t - \cos 2t}{t}\right\}$

[P.T.O]

15. Evaluate $L^{-1}\left\{\frac{p+1}{p^2+6p+25}\right\}$

(OR)

16. Find $L^{-1}\left\{\frac{3p+1}{(p-1)(p^2+1)}\right\}$

17. Find $L^{-1}\left\{\frac{p+2}{(p^2+4p+5)^2}\right\}$

(OR)

18. Apply Convolution theorem to find $L^{-1}\left\{\frac{p^2}{(p^2+4)^2}\right\}$

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc (MSCS, DS)	Max Marks	: 75
Subject	: Statistics	Pass Mark	: 30
Title of Paper	: Statistical Inference	Duration	: 3 Hrs
Paper Code	: R20STAT301A/R20DSSTAT301A	Time	: 2pm-5pm
W.E.F	: 2022-23	Date	: 21-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Define the population, sample, parameter and statistic with their examples.

2. Explain the Reproductive property of chi-square distribution.

3. Explain the method of moments.

4. Distinguish between point and interval estimation.

5. Define one-tailed and two-tailed test.

6. Explain procedure for testing hypothesis.

7. Explain the paired t-test for difference means.

8. What are the assumptions on non-parametric test.

SECTION-B

II. Answer the following Questions **5X8=40M**

9. Define t-distribution and derive its mean and variance.

(OR)

10. Show that a limiting case of Chi-square distribution.

11. State and Prove Crammer Rao inequality.

(OR)

12. Explain the method of Maximum likelihood estimation and what are its properties.

13. State and prove Neymann – pearson's lemma.

(OR)

14. Find the best critical region for testing H_0: $\lambda = 2$ against H_1: $\lambda = 3$ based on the sample drawn from a Poisson population.

15. Explain the test procedure of two proportions.

(OR)

16. Explain the F- test for equality of population variance.

17. Explain the median test procedure.

(OR)

18. Explain the sign test for two samples.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BBA Honours (Business Analytics)	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: Fundamentals of Business Analytics	Duration	: 3 Hrs
Paper Code	: R23BBASTAT301	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 18/10/2024

SECTION-A

I. Answer any FIVE of the following Questions **5X12=60M**

1. Define Business Analytics and distinguish between business analytics and business intelligence.

(OR)

2. Explain different types of data (structured, unstructured) are commonly analyzed?

3. Define descriptive analytics & write its importance.

(OR)

4. What visualization techniques are used to present data insights?

5. How do correlation and regression analysis help in understanding relationships between variables?

(OR)

6. Explain cluster Analysis.

7. Define prescriptive analysis and write its applications.

(OR)

8. How do we translate data insights into actionable business strategies?

9. Discuss customer analytics for a new product development.

(OR)

10. Explain key performance indicators (KPI) for measuring sales performance?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
III SEMESTER END EXAMINATIONS

Class	: II B.Sc. (MSCS, DS)	Max Marks	: 75
Subject	: Statistics	Pass Mark	: 30
Title of Paper	: Statistical Inference	Duration	: 3 Hrs
Paper Code	: R20STAT301/R20DSSTAT301	Paper Time	: 2pm - 5pm
W.E.F	: 2021-22	Date	: 21-10-24

SECTION – A

I. Answer any FIVE Of the following questions. **5X5=25M**

1. Derive the relation between t and F distributions.
2. Explain about method of moments.
3. State and prove invariance property of consistency.
4. Explain critical region and most powerful test.
5. Explain types of errors and degrees of freedom.
6. Explain the test procedure for single proportion.
7. Explain the Man-Whitney U test.
8. Distinguish between parametric and non parametric test.

SECTION –B

II. Answer ALL the following Questions **5X10=50M**

9. **(a)** Derive the relation between x^2 and F distributions.

(OR)

(b) Define t- distribution and derive its mean and variance.

10. **(a)** State and prove Cramer- Rao's inequality.

(OR)

(b) Obtain MLE for a) μ when σ^2 is known b) σ^2 when μ is known in Normal distribution with mean μ and variance σ^2.

11. **(a)** State and prove Neymann Pearson lemma.

(OR)

(b) Obtain best critical region for testing H0: $P=P_0$ Vs $H_1: P=P_1$ in a binomial distribution.

12. **(a)** Explain the large sample test for testing the significance of the difference between the sample means.

(OR)

(b) Explain the F test for equality of variance.

13. **(a)** Explain the median test procedure for two samples.

(OR)

(b) Explain the Sign test for two samples.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Stat)	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: Inferential Statistics	Duration	: 3 Hrs
Paper Code	: R23STAT304	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 19-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Statement of Neyman's Factorization theorem.

2. Explain the method of moments.

3. Define critical region.

4. Define one tailed test and two tailed test.

5. Test of significance for single mean.

6. Explain the F-test for equality of variances.

7. Define parametric and Non-parametric test.

8. Write the sign test for single sample.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain Criteria of a good estimator.

(OR)

10. Explain the method of maximum likelihood estimation and what its properties are.

11. State and Prove Neyman-Pearson Lemma.

(OR)

12. For the binomial distribution with parameters n, p. Find the MP test of level for H_0: $P=P_0$ against H_1:$P=P_1(\neq P_0)$.

13. Explain the test of significance for difference of proportion.

(OR)

14. Explain the test of significance for difference of means.

15. Explain the chi-square test for independence of attributes.

(OR)

16. The time taken by workers in performing a job by method- I and method-II are given below

Method-I	20	16	26	27	23	22	
Method-II	27	33	42	35	32	34	38

Do the data show that the variances of time distribution from population from which these samples are drawn do not differ significantly?

17. Explain the sign test for two samples.

(OR)

18. Explain median test.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours(Statistics)	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: **Statistical Methods**	Duration	: 3 Hrs
Paper Code	: R23STAT303	Time	: 2pm – 5pm
W.E.F	: 2024-25	Date	: 18|10|2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain the principle of least squares.

2. Explain Scatter Diagram.

3. Define and explain bivariate frequency distribution.

4. Define Partial Correlation Coefficient and state its properties.

5. Define Probable error and also mention its properties.

6. Define Linear and Non – Linear Regression.

7. Define Class, ultimate class frequencies, order of class frequencies.

8. Define Mean square contingency coefficient.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Fitting of a power curve by using least square principle.

(OR)

10. Fit a second degree parabola of the form $y = a + bx + cx^2$ to the following data

x	0	1	2	3	4
y	1.0	1.8	1.3	2.5	6.3

11. Derive the Spearman's Rank Correlation Coefficient.

(OR)

12. Calculate Karl Pearson's Correlation Coefficient between X and Y for the following data

x	1	3	4	5	7	8	10
y	2	6	8	10	14	16	20

13. If $r_{12} = 0.7$, $r_{13} = 0.72$ and $r_{23} = 0.52$ then determine the partial correlation coefficient of $r_{12.3}$ and $r_{23.1}$.

(OR)

14. Explain the concepts of Multiple and Partial correlation coefficients.

15. Derive the angle between two Regression lines.

(OR)

16. Obtain the two regression lines from the following data

x	6	2	10	4	8
y	9	11	5	8	7

17. For 'n' attributes $A_1, A_2, \ldots, A_n$, show that the class frequency $(A_1 \bullet A_2 \bullet \ldots \bullet A_n) \geq (A_1) + (A_2) + \ldots\ldots + (A_n) - (n-1) N$. Where N is the total number of observations

(OR)

18. Find the remaining class frequencies, given the following data
N = 23, 713, (A) = 1,618, (B) = 2,015, (C) =770, (AB) = 587, (AC) = 428, (BC) = 335, (ABC) = 156.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours(Statistics)	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: **Theoretical Discrete Distributions**	Duration	: 3 Hrs
Paper Code	: R23STAT301	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 16.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Define and explain Uniform Distribution.

2. Derive Mean and Variance of Bernoulli distribution.

3. Define Poisson Distribution and mention its properties.

4. Derive the additive property of Poisson Distribution.

5. Define Negative Binomial Distribution.

6. Define Geometric Distribution.

7. Write the properties of Geometric Distribution.

8. Define and explain Hyper Geometric Distribution.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Define Binomial Distribution and derive its M.G.F, Mean and Variance.

(OR)

10. The probability that a student is not swimmer is 1/5. Out of 5 students, find the probability that (i) 4 are swimmers (ii) atleast 4 are swimmers.

11. Show that Poisson Distribution as a limiting case of Binomial Distribution.

(OR)

12. A company knows on the basis of past experience that 2% of its blades are defective, find the probability of having 3 defective blades in a sample of 100 blades.

13. Derive the Mean and Variance of Negative Binomial Distribution.

(OR)

14. Show that Negative Binomial Distribution tends to Normal Distribution.

15. Derive the M.G.F. of Geometric distribution and hence find its mean and variance.

(OR)

16. State and prove memory less property of Geometric Distribution.

17. Show that Hyper Geometric Distribution tends to Binomial Distribution.

(OR)

18. Derive the mean and variance of Hyper Geometric Distribution.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hon (Data Science)	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: **INFERENTIAL STATISTICS**	Duration	: 3Hrs
Paper Code	: R23DSSTAT301	Time	: 2pm – 5pm
W.E.F	: 2024-25	Date	: 18/10/2024

SECTION-A

I. Answer any FIVE of the following questions **5X4=20M**

1. Explain the method of moments.

2. Define Population, Parameter and Statistic.

3. Define Null and Alternative hypothesis.

4. Define one –tailed and two – tailed tests.

5. Explain the test procedure for Single Mean.

6. Explain paired t – test for difference of means.

7. What is the difference between Parametric and Non – Parametric tests.

8. Explain the Runs test for Single Sample..

SECTION-B

II. Answer ALL of the following questions **5X8=40M**

9. Explain the criteria of a good estimator.

(OR)

10. If X is a poisson variate with parameter λ. Find the maximum likelihood estimate of λ on the basis of a size n.

11. State and prove Neyman – Pearson's Lemma.

(OR)

12. Let p be the probability that a coin will fall head in a single toss in order to test $H_0 : p = \frac{1}{2}$ against $H_0 : p = \frac{3}{4}$. The coin is tossed 5 times and H_0 is rejected if more than 3 heads are obtained. Find the probability of type I and type II errors.

13. Explain the large sample for testing the significance of difference of means.

(OR)

14. In a sample of 1,000 people in Uttar Pradesh, 540 are rice eaters and rest are wheat eaters. Can we assume that both rice and wheat are equally popular in this state at 5% level of significance.

[P.T.O]

15. Explain F – test for equality of two population variances.

(OR)

16. The following figures shows the distribution of digits in numbers chosen at random from a telephone directory.

Digits	0	1	2	3	4	5	6	7	8	9
Frequency	1026	1107	997	966	1075	933	1107	972	964	853

Test whether the digits may be taken to occur equally frequently in the directory.

17. Explain the Median test for two samples.

(OR)

18. Use one sample sign test to test the hypothesis that the median value μ of a continuous distribution is 15 i.e., $H_0 : \mu = 15$ against an alternative hypothesis that $H_1 : \mu > 15$ at $\alpha = 0.05$ level of significance. Twenty observations were taken and the following results were obtained.

17,18,16,16,17,19,14,13,19,21,22,11,9,12,14,17,23,18,17,16

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Stat)	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: Theoretical Continuous Distributions	Duration	: 3 Hrs
Paper Code	: R23STAT302	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 17-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Derive Mean Deviation about Mean of Rectangular Distribution.

2. Obtain Mean and Variance of Exponential Distribution.

3. State and prove additive property of Gamma Distribution.

4. Obtain Harmonic mean for Beta Distribution for first kind.

5. Write importance of Normal distribution.

6. Explain points of inflexion of probability curve.

7. Obtain M.G.F of Standard Normal Distribution.

8. Write properties of Chi-Square Distribution.

SECTION-B

II. Answer any FIVE of the following Questions **5X8=40M**

9. Define Rectangular Distribution. Obtain Moments of Rectangular Distribution.

(OR)

10. If X is uniformly distributed with mean 1 and variance $\frac{4}{3}$.
Find (i) $P(X < 0)$ (ii) $P(2 < X < 5)$.

11. State and prove lack of memory property of Exponential Distribution.

(OR)

12. Define Exponential Distribution. Derive M.G.F of Exponential Distribution and find its mean and variance.

13. Show that Gamma distribution tends to normal distribution as $\lambda \to \infty$.

(OR)

14. Define Beta Distribution of second kind and Obtain its mean and variance.

15. Define Normal Distribution. Write chief characteristics of Normal Distribution.

(OR)

16. Show that Mean=Median=Mode in the Normal Distribution.

17. If X is normally distributed with Mean 8 and S.D. 4
Find (i) $P(5 \le X \le 10)$ (ii) $P(X \le 5)$.

(OR)

18. Define F- Distribution. Write its applications and properties.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hon(DS)	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 40
Title of Paper	: **Distribution Theory**	Duration	: 3Hrs
Paper Code	: R23DSMSTAT302	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE questions **5X4=20M**

1. Define and explain Discrete Uniform distribution.
2. Define and explain Bernoulli distribution.
3. State and prove Additive property of Poisson Distribution.
4. What are the applications of Poisson distribution.
5. Define Gamma Distribution and write its properties.
6. Derive the Skewness of Exponential Distribution.
7. Explain the importance of Normal Distribution.
8. Define F – distribution and mention its properties

SECTION-B

II. Answer ALL questions **5X8=40M**

9. Define Binomial Distribution and derive its M.G.F, Mean and Variance.

(OR)

10. The probability that a bomb dropped from a plane strikes the target is 1/5. Find the probability that out of 6 bombs dropped atleast 2 bombs strike the target.
11. Define Poisson Distribution and derive its Mean and Variance.

(OR)

12. If the probability that an individual suffers a bad reaction from injection of a given serum is 0.001. determine the probability that out of 2000 individuals
(i) exactly 3 (ii) more than 2 individuals suffer a bad reaction.
13. Obtain M.G.F. of Gamma Distribution.

(OR)

14. Sate and prove memory less property of Exponential Distribution.
15. Define Normal Distribution and explain its some important properties.

(OR)

16. If X is normally distributed and the mean of X is 12 and S.D. is 4. Find
(i) $P(X > 20)$ (ii) $P(X \leq 20)$ (iii) $P(0 \leq X \leq 12)$
17. Define Chi – Square distribution and write its properties and applications.

(OR)

18. Define t – distribution and explain its properties and also applications.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (AI)	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: **Inferential Statistics**	Duration	: 3 Hrs
Paper Code	: R23AISTAT301	Time	: 2pm – 5pm
W.E.F	: 2024-25	Date	: 18/10/2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain the method of Moments.

2. Define Population and Sample.

3. Explain the procedure for testing of hypothesis.

4. Define and explain power of a test.

5. Explain the paired t – test for difference of means.

6. Explain the Chi – Square test for goodness of fit.

7. Explain ANOVA One way classification.

8. What are the advantages of Non – Parametric Tests?

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain the criteria of a good estimator.

(OR)

10. Define and explain the Maximum likelihood estimation method.

11. Explain the following terms.

i) Statistical hypothesis ii) Critical region

iii) Two types of errors iv) One tailed and two tailed tests

(OR)

12. In Andhra University, it was found that the S.D.of heights of the students was 3". When a sample of 100 was drawn from it, the sample mean was found to be 68". On the basis of the information, can you decide that the average height of the students in A.U. could be 70"?

13. Explain the t – test for equality of two population means.

(OR)

[P.T.O]

14. The following figures shows the distribution of digits in numbers chosen at random from a telephone directory.

Digits	0	1	2	3	4	5	6	7	8	9
Frequency	1026	1107	997	966	1075	933	1107	972	964	853

Test whether the digits may be taken to occur equally frequently in the directory.

15. Explain ANOVA Two – Way classification.

(OR)

16. It is known that the mean diameter of rivets produced by two firms A and B are partially the same. But the S.Ds. may differ. For 22 rivets from A, the S.D. is to be 2.9mm. while for 16 rivets from B, the S.D is 3.8mm. Can you say that the diameter of the rivets produced by A and B have the same variability?

17. Explain Runs Test for Randomness.

(OR)

18. The table below gives the arithmetic addition scores for 27 individuals belonging to two groups. Use Median test to test the hypothesis of no difference between these two sets of score at 5% level of significance.Table : Scores on an addition test.

X	Y
12	7
16	12
18	14
7	18
6	5
4	16
11	9
12	10
8	14
20	3
18	18
16	9
10	7
	4

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Phy,Comp)	Max Marks	: 60
Subject	: Physics	Pass Mark	: 24
Title of Paper	: Optics	Duration	: 3 Hrs
Paper Code	: R23PHY301/R23MPHY301	Time	: 2 pm - 5 pm
W.E.F	: 2024-25	Date	: 16-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Derive formula for achromatism for two lenses in contact.
2. Derive the Cosine law.
3. Distinguish between Fresnel and Fraunhofer diffraction.
4. Write a short note on Malus law.
5. Write the differences between stimulated and spontaneous emissions.
6. In a Newton's ring experiment, the diameter of the 5^{th} ring was 0.3cm and the diameter of 5^{th} was 0.8cm. If the wavelength of the light used is 4.87×10^{-5}cm then find the radius of curvature of the plano-convex lens.
7. Find the radius of the first zone in a zone plate of focal length 20cm for a light of Wavelength 500nm.
8. Calculate the thickness of a mica sheet required for making a quarter wave plate and half wave plate. Given $\lambda = 5460A^0$, $\mu_0 = 1.586$ and $\mu_e = 1.592$.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain spherical aberration. How the spherical aberration eliminated when two lenses separated by some distances?

(OR)

10. Explain chromatic aberration. Explain methods to rectify chromatic aberration.
11. Give the procedure for determining the wavelength of the given source of light using Fresnel's biprism.

(OR)

12. How do you determine the wavelength of the monochromatic light using Newton's rings?
13. What is zone plate? Explain the construction and working of zone plate.

(OR)

14. Determine the wavelength of light using diffraction grating.
15. Define specific rotation. How it is determined by using Laurent's half shade polarimeter?

(OR)

16. Explain half wave plate and quarter wave plate.
17. Explain the construction and working of He-Ne Laser.

(OR)

18. Explain how a hologram is prepared and viewed. Give the applications of holography.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc (MPC,MPCS)	Max Marks	: 75
Subject	: Physics	Pass Mark	: 30
Title of Paper	: Heat and Thermodynamics	Duration	: 3Hrs
Paper Code	: R20PHY301	Time	: 2pm - 5pm
W.E.F	: 2022-2023	Date	: 21-10-2024

SECTION-A

I. Answer the following Questions **5X10=50M**

1. Derive an expression for Maxwell's law of distribution of Molecular speeds in a gas.

(OR)

2. On the basis of Kinetic theory of gases derive an expression for thermal conductivity of a gas and discuss the conclusion.

3. What is T-S diagram? How efficiency can be determined from it. Mention its uses.

(OR)

4. Explain the working of Carnot's Engine and its efficiency.

5. What are thermodynamic potentials? Derive Maxwell's thermo dynamic relations from thermodynamic potentials.

(OR)

6. Define C_P and C_V. why C_P is greater than C_V. Derive an expression for difference of specific heats

7. What is Joule Thomson effect? Obtain the expression for cooling produced when gas suffers Joule-Thomson effect.

(OR)

8. Explain adiabatic demagnetization method for producing very low temperatures with necessary theory.

9. Derive an expression for Plank's radiation law. Deduce Wien's Law from it.

(OR)

10. What is solar constant? Determine the temperature of the Sun.

SECTION-B

II. Answer THREE the following Questions **5X3=15M**

11. Explain transport phenomena.
12. What is indicator diagram? Write its uses.
13. Derive an expression for ratio of C_P to C_V.
14. Write the applications of substances at low temperatures.
15. State and Explain Stefan's Law.

SECTION-C

III. Answer TWO the following Questions **5X2=10M**

16. The r.m.s speed of hydrogen molecule is 1.84km/sec. what will be the r.m.s speed of oxygen molecule at the same temperature.

17. Calculate the efficiency of a reversible heat engine working between 227^0C and 27^0C.

18. Calculate the work done when a molecule of an ideal gas expands isothermally at 127^0C to double its original volume ($R=8.314\ Jdeg^{-1}mol^{-1}$)

19. Determine the temperature of the sun with the help of wien's law given $b=2.92x10^{-3}mk$ maximum wavelength $=4900A^0$

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hon(Physics)	Max Marks	: 60
Subject	: Physics	Pass Mark	: 24
Title of Paper	: **Heat And Thermodynamics**	Duration	: 3 Hrs
Paper Code	: R23PHY302	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 17-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain mean free path.

2. What are differences between reversible and irreversible process.

3. Show that entropy increases in irreversible process

4. Derive Joule-Kelvin coefficient for ideal gas.

5. Distinguish between adibatic and joule Thomson expansion.

6. State and Explain Wien's displacement Law.

7. Calculate the efficiency of a reversible heat engine working between 227°C and 27°C.

8. Determine the temperature of the sun with the help of wien's law given $b=2.92\times10^{-3}$mk maximum wavelength $=4900A^0$

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Derive an expression for Maxwell's law of distribution of Molecular speeds in a gas.

(OR)

10. On the basis of Kinetic theory of gases derive an expression for thermal conductivity of a gas and discuss the conclusion.

11. What is T-S diagram? How efficiency can be determined from it. Mention its uses.

(OR)

12. State and explain Carnot's theorem.

13. What are thermodynamic potentials? Derive Maxwell's thermo dynamic relations from thermodynamic potentials.

(OR)

14. What is joule-kelvin effect explain the joule kelvin effect from Maxwell's thermodynamic potentials

15. What is Joule Thomson effect? Obtain the expression for cooling produced when gas suffers Joule-Thomson effect.

(OR)

16. Explain adiabatic demagnetization method for producing very low temperatures with necessary theory.

17. Derive an expression for Plank's radiation law. Deduce Wien's Law from it.

(OR)

18. What is solar constant? Determine the temperature of the Sun.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc (MPC, MPCS)	Max Marks	: 75
Subject	: Physics	Pass Mark	: 30
Title of Paper	: Heat And Thermodynamics	Duration	: 3 Hrs
Paper Code	: R20PHY301A	Time	: 2pm-5pm
W.E.F	: 2022-23	Date	: 21-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain Trasport phenomena.
2. Calculate the efficiency of reversible heat engine working between 72^0C and 187^0C.
3. Show that the entropy increase in an irreversible process.
4. Derive expression for ratio of Cp to Cv.
5. Find the wave length at which maximum energy is radiated by a black body having a temperature of 327^0C. The Wien's Constant is 2.897×10^{-3} mK.
6. State and explain Stefan's law.
7. What is an indicator diagram? Write its uses.
8. Explain the principle and working of refrigerator.

SECTION-B

II. Answer the following Questions **5X8=40M**

9. Derive an expression for Maxwell's Law of Distribution of Molecular speeds in a gas.

(OR)

10. On the basis of Kinetic theory of gases derive an expression for thermal conductivity of gas and discuss the conclusion.

11. State and prove Carnot's theorem.

(OR)

12. What is P-V diagram? Explain the working of Carnot's engine and find its efficiency.

13. What are the thermodynamic potentials? Derive Maxwell's thermo dynamic relations from thermo dynamic potentials.

(OR)

14. What is Joul-Kelvin effect? Explain the Joul-Kelvin effect from Maxwell's Thermodynamic Relations.

15. What is Joule Kelvin effect? Describe Porous plug Experiment and indicate the results.

(OR)

16. Explain adiabatic demagnetization method for producing very low temperatures with necessary theory.

17. What is pyrometer? Describe the construction and working of disappearing filament optical pyrometer.

(OR)

18. Derive an expression for Plank's radiation Law. Deduce Wien's Law from it.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Phy)	Max Marks	: 60
Subject	: Physics	Pass Mark	: 24
Title of Paper	: Analog and Digital Electronics	Duration	: 3 Hrs
Paper Code	: R23PHY304	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain the basic principle of feedback amplifiers(positive & negative feedback derivation)
2. Explain the Concept of virtual ground in OP-AMP
3. Explain the working of OP-amp as Summing Amplifier.
4. Write a brief note on SOP and POS forms with examples.
5. State and prove De-Morgan's first theorem.
6. Explain the working of Half Sub tractor.
7. Define Decoder. Explain about 2 to 4 line decoder with diagram and truth table.
8. Explain the working of D- flip flop with truth table.

SECTION-B

II. Answer the following Questions **5X8=40M**

9. What is an Op-Amp? Draw and explain the block diagram of OP-AMP.

(OR)

10. Draw the circuit diagram of inverting and non inverting amplifiers and obtain expression for its voltage gains?

11. Explain about Input offset voltage, Input bias current, CMRR , Slew rate.

(OR)

12. Explain the working of OP-AMP Integrator and Differentiator.

13. Explain about Decimal, Binary, Hexadecimal, Octal systems with examples.

(OR)

14. Explain about NAND as Universal gate (AND, OR, NOT, NOR, XOR from NAND).

15. Explain the working of Half adder & Full adder with their diagrams and truth tables.

(OR)

16. Define De-multiplexer? Explain the working of 1 to 4 De-multiplexer with diagrams.

17. What is Flip Flop? Explain the working of clocked-RS flip flop with truth table.

(OR)

18. Explain briefly about BCD to 7 segment Decoder.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Phy)	Max Marks	: 60
Subject	: Physics	Pass Mark	: 24
Title of Paper	: Electronic Devices And Circuits	Duration	: 3 Hrs
Paper Code	: R23PHY303	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 18|10|2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain the difference between P-N Junction diode and Zener diode.

2. Briefly explain Zener diode.as a voltage regulator.

3. Explain the working of PNP transistor.

4. Explain the concept of thermal runaway.

5. Distinguish between JFET and MOSFET.

6. Explain the Applications of SCR.

7. Write a short note on Light-Dependent Resistor (LDR)

8. Explain briefly about Choke input.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. What is P-N junction diode? Explain the working and V-I characteristics of P-N junction diode.

(OR)

10. Explain the working of Tunnel diode and its V- I Characteristics.

11. Explain the input and output characteristics of Common Base Configuration of a Transistor.

(OR)

12. Why **h**- parameters are known as hybrid parameters? Describe how they determined from the characteristics of CE configuration.

13. Explain the working of an JFET and explain its Drain & Transfer characteristics.

(OR)

14. Explain the working and V-I characteristics of Silicon Controlled Rectifier (SCR).

15. Explain the Construction, working and applications of Light Emitting Diode (LED).

(OR)

16. What is Photo Diode? Give its circuit symbol, principle and working of Photo Diode.

17. What is rectification? Explain the operation, working of Full wave rectifier & derive its efficiency.

(OR)

18. Explain briefly about L-section filter & Pi- Section Filter.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Ele)	Max Marks	: 60
Subject	: Electronics	Pass Mark	: 24
Title of Paper	: SemiConductor Devices And Materials	Duration	: 3 Hrs
Paper Code	: R23ELE301/R23MELE301	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 16-10-2024

SECTION-A **5X4=20M**

I. Answer any FIVE of the following Questions

1. Explain drift and diffusion mechanisms in carrier transport.
2. Briefly describe velocity saturation in semiconductors.
3. Briefly Describe the Significance of Hetero junctions in Semiconductor Devices.
4. Explain the Difference Between Schottky and Ohmic Contacts.
5. Explain the C-V Characteristics of an Ideal MOS Capacitor.
6. Describe the Structure and Function of Light-Emitting Diodes (LEDs).
7. Explain the Concept of Quantum Wells and Their Applications.
8. Briefly Explain the Mid-Frequency Response of an RC-Coupled Amplifier.

SECTION-B **5X8=40M**

II. Answer the following Questions

9. Explain the Energy Band Structure in Inorganic Semiconductors.

(OR)

10. Discuss the Injection and Recombination of Excess Carriers in Semiconductors.
11. Explain the Structure and I-V Characteristics of Metal-Semiconductor (MS) Contacts

(OR)

12. Discuss the Structure, Operation, and C-V Characteristics of Metal-Insulator-Semiconductor (MIS) Structures.
13. Discuss the Structure, Operation, and Device Characteristics of a MOSFET.

(OR)

14. Explain the Structure and Operation of Charge Coupled Devices (CCDs) and their application in VLSI.
15. Discuss the Structure and Operation of a Solar Cell.

(OR)

16. Explain the Working Principle and Structure of a Non-Volatile Memory Device.
17. Explain the Behaviour of a BJT at High Frequencies.

(OR)

18. Explain the Structure and Frequency Response of a Transformer-Coupled Amplifier.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Electronics)	Max Marks	: 60
Subject	: Electronics	Pass Mark	: 24
Title of Paper	: **Electronic Communication System**	Duration	: 3 Hrs
Paper Code	: R23ELE304	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain the Ground wave Propagation.
2. What is the Antenna? And write its parameters.
3. Explain the Generation of DSBSC
4. What is Modulation? Explain the need of Modulation.
5. Explain the working of Frequency Modulation.
6. Explain briefly about reactance tube modulator.
7. Explain the concept of sampling.
8. Explain the concept of CDMA.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain the terms (a) Folded Dipole (b) Parabolic Antennas.

(OR)

10. Explain the terms (a) effective resistance (b) Polarization.
11. Explain the block diagram of AM Radio Transmitter.

(OR)

12. Explain the block diagram of Superheterodyne receiver.
13. Explain the Generation of FM using Varacter Diode..

(OR)

14. Explain the block diagram of FM receiver.
15. Explain the Generation of Pulse Code Modulation (PCM).

(OR)

16. Explain the Generation of Delta Modulation.
17. What is Multiplexing? Explain the working of FDM.

(OR)

18. Explain briefly about Satellite Communication.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hon(Electronics)	Max Marks	: 60
Subject	: Electronics	Pass Mark	: 24
Title of Paper	: **Analog Electronics**	Duration	: 3Hrs
Paper Code	: R23ELE303	Time	: 2pm – 5pm
W.E.F	: 2024-25	Date	: 18|10|2024.

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain the power dissipation in amplifier

2. What is gain and frequency response

3. What is input and output resistance of various types of feedback?

4. What is transfer gain with feedback

5. Explain the differential gain and bandwidth

6. What are the offset parameters of operational amplifier

7. What are active filters

8. Explain the working of crystal oscillator

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain the transformer coupled amplifiers

(OR)

10. Explain the working of class A and class B amplifiers

11. Explain the working of negative feedback amplifier

(OR)

12. Explain the analysis of voltage and current in feedback amplifier circuit

13. Explain the terms CMRR and slew rate

(OR)

14. Explain the operational amplifier transfer characteristics

15. Explain the working of non-inverting amplifier

(OR)

16. Explain the working of adder circuit using opamp

17. Explain the working of Schmitt trigger

(OR)

18. Explain barkhausen criterion for oscillations

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Electronics)	Max Marks	: 60
Subject	: Electronics	Pass Mark	: 24
Title of Paper	: **Digital Electronics**	Duration	: 3 Hrs
Paper Code	: R23ELE302	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 17-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain about Gray code and its conversion with example.
2. Explain about Binary Addition and Binary Subtraction with examples.
3. Explain about Universal Logic Gates (NAND & NOR) with their Truth Tables
4. State and prove De-Morgan's theorem.
5. Explain about Magnitude Comparator.
6. Define Decoder. Explain about 3 to 8 line decoder with diagram and truth table.
7. Explain the working of JK-flip flop with truth table.
8. Write a short note on EAROM.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain about 1's, 2's, 9's and 10's Complements with examples.

(OR)

10. Explain about Excess-3 Code and BCD to Excess-3 Code & Excess-3 Code to BCD Conversions.
11. Explain about AND, OR, NOT, XOR, X-NOR logic gates with their truth tables.

(OR)

12. Write about Karnaugh Maps & Explain about 2, 3, 4 variable K-maps with tables.
13. Explain the working of Half Subtractor & Full Subtractor with their diagrams and Truth tables.

(OR)

14. Define Multiplexer? Explain the working of 4 to 1 Multiplexer with diagrams.
15. Explain the operation of Master – Slave Flip-flop with neat circuit & timing diagrams.

(OR)

16. Explain the working of Asynchronous Mod-16 Counter with diagram
17. Explain about RAM and its types (S-RAM, D-RAM)

(OR)

18. Explain briefly about EPROM and EEPROM.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc (MECS)	Max Marks	: 60
Subject	: Electronics	Pass Mark	: 24
Title of Paper	: Analog Circuits And Communication	Duration	: 3 Hrs
Paper Code	: R20ELE301A	Time	: 2pm-5pm
W.E.F	: 2022-23	Date	: 21-10-2024

SECTION-A

I. Answer the following Questions **5X4=20M**

1. What is Operational Amplifier?
2. What is comparator? Describe the working of OP-amp Comparator and mention its uses?
3. Explain the different types of modulations.
4. Explain the working of OP-amp Summing Amplifier.
5. Explain the working of Schmitt's trigger?
6. Explain the need for modulation.
7. What is Detection? Explain the operation of FM wave detector.
8. Explain Radio Broadcasting and reception.

SECTION-B

II. Answer any FIVE of the following Questions **5X8=40M**

9. Explain the working of OP-AMP Integrator and Differentiator?

(OR)

10. Draw and explain the block diagram of Operational amplifier?

11. Draw the circuit of A stable Multi-vibrator using OP-AMP? Explain its working and derive expression for frequency of Oscillations?

(OR)

12. What is Active filters? Explain the Low, high and band pass filters?

13. What is Detection? Describe the working of a diode detector for AM waves.

(OR)

14. What is Modulation? Describe with suitable waveforms the working of amplitude modulation.
15. Explain frequency modulation technique and describe its frequency spectrum.

(OR)

16. Draw and explain how FM waves can be detected using PLL method.

17. Draw the block diagram of FM Transmitter and explain each block.

(OR)

18. Draw the block diagram of AM Super heterodyne receiver and explain each block.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
III SEMESTER END EXAMINATIONS

Class	: II B.Sc. (MPC,MCCS,CBZ)	Max Marks	: 75
Subject	: Chemistry	Pass Mark	: 30
Title of Paper	: Organic Chemistry & Spectroscopy	Duration	: 3 Hrs
Paper Code	: R20CHE301	Paper Time	: 2pm - 5pm
W.E.F	: 2021-22	Date	: 23/10/2024

SECTION – A

I. Answer any FIVE Of the following questions. **5X5=25M**

1. Differentiate primary, secondary and tertiary alcohols by using Lucas Test.
2. Explain Riemer-Tiemann reaction.
3. Explain Aldol Condensation with mechanism.
4. What is Aceto Acetic Ester? How it is prepared?
5. What is Schmidt reaction?
6. Explain the concept of Chromophore and Auxochrome.
7. Write a note on Spin-Spin Coupling.
8. Explain IR Spectra of Alcohols.

SECTION –B

II. Answer ALL the following Questions **5X10=50M**

9. Explain the mechanism of SN^1 and SN^2 reactions of Alkyl halides.

(OR)

10. Explain the following reactions.
(i) Pinacol –Pinacolone rearrangement (ii) Kolbe's- Schmidt reaction

11. Explain the following reactions with mechanism.
i) Cannizaro reaction ii) Benzoin condensation

(OR)

12. Write the preparation and any two synthetic applications of diethyl malonate.
13. Write a note on Huns diecker reaction and Arndt- Eistert Synthesis.

(OR)

14. Describe any two methods of preparation and Esters and Amides.
15. Explain the different types of electronic transitions with examples.

(OR)

16. Define Chemical Shift. And Explain the NMR splitting in ehanol and acetophenone.
17. Write Wood ward- Fieser rules for calculating λ max for conjugated dienes and α,β-unsaturated carbonyl compounds and apply them for one example.

(OR)

18. i) What is Fingerprint region.
ii) Write IR spectral data for any alkene, aldehydes and ketones.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II Degree Hon(All Groups)	Max Marks	: 50
Subject	: Chemistry	Pass Mark	: 20
Title of Paper	: **Health And Hygiene**	Duration	: 2 Hrs
Paper Code	: R23MDP301	Time	: 2pm - 4pm
W.E.F	: 2024-25	Date	: 14.10.2024

SECTION-A

I. Answer any FOUR of the following Questions **4X5=20M**

1. Discuss the functions and sources of Water.

2. Define Nutrition and explain its importance.

3. Explain the functions of Indian Council of Medical Research.

4. What is JSSK? Discuss.

5. Write a short notes on functions of Covid-19 AP App.

6. Define personal Hygiene and explain its importance.

SECTION-B

II. Answer any THREE of the following Questions **3X10=30M**

7. Explain the functions, Dietary food sources and deficiency of Vitamins.

8. Discuss the effects of deficiency of Carbohydrates, Lipids and Proteins.

9. Explain about the functions of National Urban Health Mission frame work and Indian Dietetics Association.

10. Evaluate the role of government and public guide lines in the containment, control and Prevention of epidemics and pandemics.

11. Explain about the public awareness programs through digital media.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class : II B.Sc Hon(Chemistry, Microbiology, Biotechnology, Computer Science)

Subject : Chemistry

Title of Paper : **Fundamentals in Organic Chemistry**

Paper Code : R23CHE301/R23MCHE301

W.E.F : 2024-25

Max Marks : 60

Pass Mark : 24

Duration : 3Hrs

Time : 2pm-5pm

Date : 16-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Define Homolytic fission & Heterolytic fission.
2. Discuss the basicity of amines.
3. Explain Wurtz & Wurtz-Fittig reaction.
4. Explain Corey-house synthesis method.
5. Discuss the ozonolysis of alkenes.
6. Write a note on Hoffmann's elimination.
7. Explain any two methods of preparation of Benzene.
8. Write the halogenation of Benzene.

SECTION-B

II. Answer any ALL of the following Questions **5X8=40M**

9. Write a note on i) Hyperconjugation ii) Stability of carbonium ions.

(OR)

10. Explain the following i) Bond Polarisation ii) Factors effecting polarisation.

11. Explain Bayer's strain theory

(OR)

12. Discuss the confirmational analysis of cyclohexane with neat diagram.

13. Explain Saytzeff's elimination in alkyl halides.

(OR)

14. Explain the Markownikoff's addition of HX in alkenes with suitable examples.

15. Discuss the structure of Benzene.

(OR)

16. Write a note on the following: i) Friedel Craft's alkylation ii) Friedel Craft's acetylation

17. Explain the orientation effects of amino and methyl group.

(OR)

18. Write a note on Benzenoid and non-benzenoid compounds.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS
III – SEMESTER END EXAMINATIONS

Class	: II B.Sc (All)	Max Marks	: 50
Subject	: Chemistry	Pass Mark	: 20
Title of Paper	: Environmental Audit	Duration	: 2 Hrs
Paper Code	: R20SDC301C	Time	: 2 pm - 4 pm
W.E.F	: 2021-22	Date	: 16-10-2024

SECTION-A

I. Answer any FOUR of the following Questions **4X5=20M**

1. Write any three global environmental problems.

2. Write a short note on Nature and toxicology of Water pollutants.

3. Write about Water Quality Parameters

4. What are the Objectives of the environmental Acts, and institutional arrangements.

5. Write a short note on Environmental Act 1986.

6. Write a short note on the public liability insurance Act 1991.

7. What is the scope of Environmental Audit.

8. What is GOI notification on Environment Audit.

SECTION-B

II. Answer any THREE of the following Questions **3X10=30M**

9. What is soil parameters and explain detail about soil pollution and their Soil Conservation.

10. Explain about
a) Classification of Water and water bodies.
b) Classification of Air pollution & pollutants.

11. Write a essay on the Air (Prevention and control of Pollution) Act, 1981 amended 1981

12. Explain about
a) The public Liability Insurance Act , 1991
b) The Water Cess Act , 1977 amended in 1991

13. What is Reporting Environmental Audit Findings and explain importance of Environmental Audit Report to industry

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

I/I – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hon(Chemistry)	Max Marks	: 60
Subject	: Chemistry	Pass Mark	: 24
Title of Paper	: **Inorganic & Physical Chemistry**	Duration	: 3Hrs
Paper Code	: R23CHE304	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Discuss Valence bond theory.

2. Write a note on spectrochemical series.

3. What are Labile & Inert complexes.

4. What is chelate effect?

5. Draw the Molecular orbital diagram for CO.

6. Derive Cp-Cv =R.

7. Define Heat, work & Internal energy.

8. Explain Second law of Thermodynamics.

SECTION-B

II. Answer ALL of the following Questions **5X8=40M**

9. Write a note on structural isomerism in coordination compounds.

(OR)

10. Discuss Crystal Field splitting in Octahedral complexes.

11. Explain Trans effect and give its applications.

(OR)

12. Write a note on factors effecting the stability of metal complexes.

13. Discuss the general methods of preparation of mono & binuclear carbonyls of 3d series.

(OR)

14. What is Synergic effect? Write the use of IR data to explain the extent of back bonding.

15. Derive Kirchoff's equation.

(OR)

16. Calculate the work done in a reversible isothermal process.

17. Calculate the efficiency of a carnot cycle.

(OR)

18. Derive Gibb's Helmholtz equation.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hon(Chemistry)	Max Marks	: 60
Subject	: Chemistry	Pass Mark	: 24
Title of Paper	: **Physical Chemistry-I (Solutions & Electrochemistry)**	Duration	: 3Hrs
Paper Code	: R23CHE303	Time	: 2pm – 5pm
W.E.F	: 2024-25	Date	: 18/10/2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain Steam Distillation with neat sketch.
2. What is Relative lowering of Vapour pressure?
3. Explain Osmosis & Osmotic pressure.
4. Write a note on Laws of Photo chemistry.
5. Explain Photo Sensitisation reactions.
6. Write a short note on conductometric titrations.
7. What is Specific conductance and Equivalent conductance.
8. Write a short note on Standard Hydrogen Electrode.

SECTION-B

II. Answer ALL of the following Questions. **5X8=40M**

9. Define CST and explain phenol-water system using Critical Solution temperature

(OR)

10. Explain Nernst's Distribution law and give any two applications of it.
11. How will you determine the relative lowering of vapour pressure of a liquid by using Ostwald and walker's method.

(OR)

12. Explain Vanthoff factor and its relation with degree of association.
13. Define quantum yield and discuss the photo chemistry of H2 and Br2 reaction with mechanism.

(OR)

14. Write a note on fluorescence with the help of Jablonski diagram.
15. Define transport number and explain its determination by Hittorff's method.

(OR)

16. State &Explain Kholrausch's law and mention any three of its applications.
17. Describe the construction and working of Calomel electrode.

(OR)

18. What are Fuel cells? Explain their construction & working.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc (MPC, MCCS, CBZ)	Max Marks	: 60
Subject	: Chemistry	Pass Mark	: 24
Title of Paper	: Organic Chemistry and Spectroscopy	Duration	: 3 Hrs
Paper Code	: R20CHE301A	Time	: 2pm -5pm
W.E.F	: 2023-24	Date	: 23/10/2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Write about mechanism of pinacol-pinacolone rearrangement.
2. Differentiate 1° , 2° and 3° alcohols by victor Meyer's test
3. Write about the aldol condensation reaction.
4. Write any two synthetic applications diethyl malonate.
5. Write a note on Schmidt's reaction.
6. What is Beer-Lambert's Law and write its limitations.
7. Write a note on spin-spin coupling.
8. Write a note on finger print region.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Give the mechanism & stereo chemistry of SN_1 and SN_2 reactions of alkyl halides with one example.

(OR)

10. Write any two preparation and properties of Phenol.

11. Explain the following reactions
(i) Perkin reaction (ii) Benzoin condensation

(OR)

12. Write the preparation and two synthetic applications ethyl aceto acetate (EAA).

13. Write any two preparation and properties of amides.

(OR)

14. Discuss about the Arndt-Eistert synthesis and halogenation by HVZ reaction

15. Explain about different types of electronic transitions.

(OR)

16. Discuss about the principle of NMR spectroscopy.

17. Write Woodward Fieser rules for calculating unsaturated carbonyl compounds and apply them for one example.

(OR)

18. Explain about different types of molecular vibrations

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class : II B.Sc Honours (Che)
Subject : Chemistry
Title of Paper : Organic Chemistry (Halogen & Oxygen Organic Compounds)
Paper Code : R23CHE302
W.E.F : 2024-25

Max Marks : 60
Pass Mark : 24
Duration : 3 Hrs

Time : 2pm-5pm
Date : 17-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Write a note on benzyne mechanism.
2. Explain Williamson's synthesis.
3. Write any two preparation methods of phenols.
4. Write the reactivity of alcohols with PCl_3, PCl_5.
5. Write the reactivity of carbonyl compounds with $LiAlH_4$, $NaBH_4$.
6. What is HVZ reaction?
7. Explain keto-enol tautomerism.
8. Write a note on mutarotation

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain SN^1 and SN^2 mechanism.

(OR)

10. Write the preparation of aryl halides from phenols and Sandmeyer's reaction.

11. Write a note on the fallowing.
    i) Reimer –Tiemann reaction ii) Kolbe-Schmidt reaction

(OR)

12. Discuss the oxidation of alcohols
    i) PCC ii) PDC iii) HIO_4 iv) $Pb(OAC)_4$

13. Discuss the addition – elimination reactions of carbonyl compounds with following reagents i) NH_2OH ii) N_2H_4 iii) 2, 4-DNP

(OR)

14. Describe the reaction and mechanism of the following reactions
    i) Clemensen's ii) Wolf - Kishner reduction

15. Explain the following reactions
    i) Huns dicker reaction ii) Schmidt reaction

(OR)

16. Discuss any two synthetic applications of Aceto acetic ester

17. Give the structural elucidation of glucose

(OR)

18. Explain Ruff 's degradation and Killiani Fischer's synthesis

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BBA Hon/B.Com Hon (TP) /BBA Hon (BA)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Object Oriented Programming Using Java	Duration	: 3 Hrs
Paper Code	: R23MNCSC301	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 21-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. What is a Variable? How to declare Variables in Java?

2. Explain about Java Environment.

3. Mention different String Operations in Java.

4. What is a Class? Explain about Abstract Classes.

5. Write a process to create Package and sub-Package.

6. Explain about Super class and Sub class.

7. Write a short note on Java API Package.

8. Explain about Checked and un Checked Exception.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain OOPs Concepts in Java.

(OR)

10. What is an Operator? Explain types of Operators in Java with example.

11. Explain different types of Arrays in Java.

(OR)

12. What is Constructor? Explain types of Constructors with syntax and example.

13. Define Interface? Explain Extending and Implementing Interfaces with example.

(OR)

14. What is a Package? How to create and access our own packages?

15. Define Inheritance? Write about types of Inheritances in detail.

(OR)

16. Explain about multi level inheritance with example program?

17. What is an Exception? Explain about built in Exceptions.

(OR)

18. Explain the following terms.
1. Try 2. Catch 3. Throw 4. Throws 5. Finally.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Voc Honours (WT)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Content Management System	Duration	: 3 Hrs
Paper Code	: R23WT302	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 17-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Define CMS. Write the features of CMS.
2. Explain about applications of CMS.
3. Distinguish between WordPress.com and WordPress.org.
4. What is Database Structure? Explain it.
5. Explain the procedure to select themes in WordPress.
6. What is DNS? Explain it.
7. Explain about Payment Gateway.
8. How to install a new Template in Joomla?

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Write Advantages and Disadvantages of CMS.

(OR)

10. Explain about the different types of CMS and its applications.

11. Write the steps to install the WordPress.

(OR)

12. Explain about features of WordPress.

13. Define Plug-in. Explain about different types of Plug-ins in WordPress.

(OR)

14. How does the process of adding and publishing posts differ from creating pages in WordPress?

15. Write about features and advantages of live chat Plug-in.

(OR)

16. Explain about Sidebar Plug-in and Search Plug-in.

17. Explain about features of Joomla.

(OR)

18. Write about Menu Manager and Component Manager in Joomla.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (AI)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Document Oriented Database**	Duration	: 3 Hrs
Paper Code	: R23AI301	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 16-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. What are the characteristics of Data Base Approach?

2. Explain Multiple views of data.

3. What is Mongo DB? Explain its features.

4. Explain types of NOSQL Data base.

5. Explain the process of creating a collection in Mongo DB.

6. Explain about array operation in Mongo DB.

7. Define the Term Document Reference.

8. What are the properties of Indexes?

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain sharing data and multi user Transaction processing.

(OR)

10. Explain briefly about the three schema architecture.

11. What is Document Database? Explain its features.

(OR)

12. Explain the Database commands of Mongo DB with example.

13. Explain about CRUD operations of Mongo DB.

(OR)

14. What is collection? Explain about types of collections in Mongo DB.

15. What is Data modeling? Explain its types.

(OR)

16. Explain briefly about Embedded document data model.

17. Define term indexing. Mention its applications in document database.

(OR)

18. Explain about Indexing strategies.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours(AI)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Data Processing & Visualisation**	Duration	: 3 Hrs
Paper Code	: R23MAI304	Time	: 2pm-5pm
W.E.F	: 2023-24	Date	: 17-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain about Tableau and Tableau Desktop.
2. Explain about Aggregation in a tableau.
3. Explain about dash boards in tableau.
4. Explain about Dual-axes combination chart.
5. Explain about Spark line's in tableau.
6. Explain about Box and whisker plot.
7. Explain about funnel chart and gnat chart.
8. How to add slices for filters.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain about Dimensions and Measures in Tableau.

(OR)

10. Explain how to shape you data using Tableau.
11. Explain the Five ways to create bar chart.

(OR)

12. Explain how to create sets in Tableau.
13. Explain about Heat Map in Tableau in detail.

(OR)

14. Explain about Histogram in Tableau.
15. Explain about Dual – axis and sequential path in tableau.

(OR)

16. Explore about Dumb bell chart in tableau.
17. Explain about Transforming Data in power Bi.

(OR)

18. Explain how to create a basic report using power Bi.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BCA	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Operating Systems	Duration	: 3Hrs
Paper Code	: R20BCA303A	Time	: 2pm - 5pm
W.E.F	: 2022-2023	Date	: 22-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain the concept of storage Management?
2. Explain Inter Process communication?
3. Explain about Scheduling Criteria?
4. Explain about Critical Section Problem?
5. Explain about Semaphores?
6. Explain about Swapping?
7. Explain about Fragmentation?
8. Discuss about Directory Structure?

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. What is Operating System? Explain different functions of Operating System?

[OR]

10. Explain about different operating system services?

11. Explain about Round – Robin CPU Scheduling in detail?

[OR]

12. Explain about multiple levels of Queue Schduling?

13. Explain about Peterson's solution in detail?

[OR]

14. Explain the methods for handling Deadlocks?

15. Explain about contagious memory allocation?

[OR]

16. Explain the concept of FIFO page replacement?

17. Explain about different File Access methods?

[OR]

18. Discuss about the features of UNIX operating System?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc (DS) / B.Voc (WT)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: OOPs with Java/Programming in Java	Duration	: 3 Hrs
Paper Code	: R20DSOJ301A/R20WSPJ301A	Time	: 2pm - 5pm
W.E.F	: 2023-24	Date	: 22-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. What is token? Explain different types of tokens in java

2. Write a short note on command Line Arguments

3. Write about method overloading method in Java.

4. Explain Visibility Control in Java

5. How to adding a class in adjusted package.

6. Explain about thread priority in Java.

7. Write about multiple catch statement.

8. Explain procedure to run an applet.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. What are characteristics of OOPS.

(OR)

10. Explain different types of operators in Java.

11. Explain about selection statements in Java

(OR)

12. What is Inheritance ? Explain different types of inheritance in Java

13. What is Interface ? How to implement multiple inheritance using interface

(OR)

14. Explain Java API Packages

15. What is thread? How to access multiple threads

(OR)

16. What is Exception ? How can we define user define exception with an example?

17. What is applet? Explain applet life cycle methods with neat diagram.

(OR)

18. Explain how to create and run applet.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Voc (WT)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: E-Commerce	Duration	: 3 Hrs
Paper Code	: R20WSEC302A	Time	: 2pm-5pm
W.E.F	: 2023-24	Date	: 21-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Write about Inventory Management
2. Define E-Commerce. Write its Advantages
3. Define EDI with its advantages
4. Write about Financial EDI.
5. Write about Work Flow Automation and Coordination.
6. Write about the Internal Information Systems
7. Write about the concept of Digital Library.
8. Write about designing E-Payment System

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain about E-Commerce with its Frame Work.

(OR)

10. Explain about E-Commerce Consumer Applications

11. Explain about MIME with its components.

(OR)

12. Explain about EDI with its architecture.

13. Explain about Supply chain Management with its models.

(OR)

14. What are the advantages and disadvantages of virtual organization?

15. Explain the three approaches of Marketing in E-Commerce

(OR)

16. Explain about various methods in Marketing Research.

17. Explain about EFT.

(OR)

18. Explain the Procedure of handling risks arising out of E-Commerce

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com (Comp)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Programming With C & C++	Duration	: 3 Hrs
Paper Code	: R20COMC303A	Time	: 2pm - 5pm
W.E.F	: 2023-24	Date	: 22-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain I/O functions in C Language.

2. What is function? Write procedure to create user defined function.

3. Explain different types of arrays with syntax

4. Explain the concept of Function Overloading.

5. Explain the difference between C and C++

6. Define constructor with example.

7. Explain different rules of operator overloading.

8. What is Inheritance? Explain single level Inheritance.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain the Structure of the C program.

(OR)

10. Explain different looping statements in C.

11. Write different string functions with examples.

(OR)

12. What is an Array? Explain different types of arrays with examples.

13. Explain the structure of C++

(OR)

14. Explain the difference between normal function and static function with examples.

15. Explain briefly about Unary operator with example.

(OR)

16. Define Constructor? Explain types of Constructors with example.

17. Write the advantages and disadvantages of Inheritance.

(OR)

18. What is Hierarchical Inheritance? Explain with example program.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc (MPCS,MSCS,MECS,MCCS)	Max Marks	: 75
Subject	:Computers Science	Pass Mark	: 30
Title of Paper	: Database Management System	Duration	: 3Hrs
Paper Code	: R20CSC301	Time	: 2pm - 5pm
W.E.F	: 2022-23	Date	: 22-12-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X5=25M**

1. What is the Difference between Data and Information?

2. Explain the Building blocks of Entity relationship diagram?

3. Explain the Advantages of ER Model?

4. What is Key? Explain about various types of Keys?

5. Explain about Sub-Queries?

6. Explain the Set operations?

7. Explain the structure of PL/SQL program?

8. Explain the data types in PL/SQL?

SECTION-B

II. Answer ALL the following Questions **5X10=50M**

9. Explain about the Drawbacks of traditional File Processing System?

(OR)

10. Explain the Components of Database Management System?

11. What is Attribute? Explain about classification of Attribute?

(OR)

12. What is EER model? Explain basic concepts of EER Model?

13. Explain the Advantages and Disadvantages of relational Algebra?

(OR)

14. What is Normalization? Explain 1 NF, 2 NF and 3 NF with examples

15. Explain about DDL commands with examples?

(OR)

16. What is View? Explain the views with example?

17. Explain about Looping statements in SQL?

(OR)

18. Explain the Triggers in PL/SQL?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc (MPCS, MSCS, MECS, MCCS)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Database Management Systems	Duration	: 3 Hrs
Paper Code	: R20CSC301A	Time	: 2pm-5pm
W.E.F	: 2023-24	Date	: 22-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Write about costs and risks of database approach?

2. Explain attribute classification?

3. Write a short note on Multiple inheritance?

4. Explain the concept of key?

5. Write a short note on limitations of relational algebra?

6. Write about Joint Operation and Set operation?

7. Discuss about Table Modification Commands?

8. Write the steps to create a PL/SQL Program?

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Define DBMS? Explain about components of Database Management System?

(OR)

10. Give a brief account on types of Data Models?

11. Explain in detail about building blocks of an ER Diagram?

(OR)

12. What is relationship Degree? Explain about Relationship Classification?

13. Explain in detail about CODD Rules?

(OR)

14. Explain a) Relational Calculus b) Tuple Relational Calculus 3) DRC?

15. Explain DDL & DML commands in SQL with an example program?

(OR)

16. Give a brief account on Aggregate Functions?

17. Explain Structure of PL/SQL?

(OR)

18. Define Trigger? Explain about various types of triggers?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BCA	Max Marks	: 75
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Operating Systems	Duration	: 3 Hrs
Paper Code	: R20BCA303	Time	: 2pm - 5pm
W.E.F	: 2022-23	Date	: 22-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X5=25M**

1. Explain about Storage Management?

2. Explain about Operating system services?

3. Explain about scheduling criteria?

4. What is Synchronization? Explain?

5. Explain Dead lock necessary condition?

6. Explain about swapping?

7. Explain about Demand paging?

8. Explain about Directory structure?

SECTION-B

II. Answer ALL the following Questions **5X10=50M**

9. What is an Operating system? Explain functions of an operating system?

(OR)

10. What is System call? Explain different types of system calls in Operating System?

11. Explain about Round- Robin Scheduling?

(OR)

12. Explain about Priority Scheduling?

13. Explain methods for handling deadlocks?

(OR)

14. Explain about deadlock detection and avoidance?

15. Explain the concept of FIFO Page Replacement?

(OR)

16. Explain about contagious memory allocation?

17. Explain different File Access Methods?

(OR)

18. Explain the features of UNIX operating system?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class : II B.Sc (MPCS, MECS, MSCS, MCCS, DS) /BCA/B.Voc (WT)

Max Marks : 75

Subject : Computer Science

Pass Mark : 30

Title of Paper : OOPs With Java

Duration : 3 Hrs

Paper Code : R20DSOJ301/R20WSPJ301/CBCSC301/ CBBCA301/DSOJ301/WSPJ301

Time : 2pm - 5pm

W.E.F : 2021-22

Date : 22-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X5=25M**

1. Explain java features.

2. Explain Java Tokens.

3. Explain Method Overloading.

4. Explain Vector Class.

5. Explain procedure to create and run applet.

6. Explain Life cycle of thread.

7. Explain thread priority.

8. Explain Wrapper classes.

SECTION-B

II. Answer ALL the following Questions **5X10=50M**

9. Explain OOPS Concepts.

(OR)

10. Explain java program structure and its compile and running the process.

11. Explain the concept of Constructors in java.

(OR)

12. Explain Visibility Control in java.

13. Explain interface with an example.

(OR)

14. Explain the process to create a package and how to add class to a package.

15. Explain user defined exception with an example program.

(OR)

16. Explain multiple catch statements with example.

17. Explain the concept of applet life cycle

(OR)

18. Write a program for getting input from user in applets.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BCA Honours	Max Marks	: 50
Subject	: Computer Science	Pass Mark	: 20
Title of Paper	: **Data Analysis**	Duration	: 2 Hrs
Paper Code	: R23SDP302	Time	: 2pm-4pm
W.E.F	: 2024-25	Date	: 15.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Define the term data science and explain its applications.

2. Define the term Big data and explain its characteristics.

3. Write about Role's in Data science Team.

4. Define the Data preprocessing.

5. Explain about the feature selection.

6. What are the Association Rules?

7. Explain about the Logistic Regression.

8. Explain about the Attribute selection.

SECTION-B

II. Answer any THREE of the following Questions **3X10=30M**

9. Explain about the Big data architecture.

10. Explain about the life cycle of Data centric projects.

11. Write about PCA (principle of component of analysis)

12. Explain about K-Means Algorithm.

13. Explain about the Decision Tree classification.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Hon(Computers)	Max Marks	: 60
Subject	: Computer	Pass Mark	: 24
Title of Paper	: **Digital Marketing**	Duration	: 3Hrs
Paper Code	: R23BCOMP302	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Write the Characteristics of Digital Marketing?
2. Write a short note on Technology behind Digital Marketing?
3. What is a landing page? Why it is important in Online Advertising Campaigns?
4. Write a short note on Online Advertising?
5. Explain about Email Marketing Tools?
6. Describe the Characteristics of Successful Social Media Marketer?
7. Describe the Process of SERP?
8. Define Off-Page Optimization?

SECTION - B

II. Answer ALL of the following questions? **5X8=40M**

9. Explain differences between Traditional Marketing and Digital Marketing?

(OR)

10. Discuss Various Digital Marketing Channels available in detail?
11. Analyze the impact of mobile devices on online advertising strategies? How have mobile trends influenced ad formats and targeting Methods?

(OR)

12. Explain Advantages & Disadvantages of online advertising compared to traditional methods?
13. Describe the concept of email marketing and its significance in modern digital marketing strategies?

(OR)

14. Evaluate the advantages and disadvantages of email marketing as a channel for reaching and engaging with target audiences.
15. Explain in detail about various tools available in social media marketing and explain their features?

(OR)

16. Outline the key components of a comprehensive social media marketing plan and explain why each element is essential?
17. Compare and Contrast On-Page Optimization and Off-Page Optimization Techniques?

(OR)

18. Discuss the significance of SEO in modern digital marketing strategies?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BCA/B.Sc Honours(DS)/ B.Voc.	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Python Programming for Data Analytics/** Python	Duration	: 3 Hrs
Paper Code	: R23DS301/R23MCSC302	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 16-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain about Features of Python.

2. Explain about Variables and Identifiers in Python.

3. Write about Tuples in Python.

4. Explain about packages in Python.

5. Explain about classes and objects in Python.

6. Explain about Numpy Basics Arrays.

7. Write about Pandas Data Frame basics.

8. Explain about String Manipulation.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain about Conditional Statement (if, if-else, elip) in Python..

(OR)

10. Explain the operations on Strings in Python.

11. Explain about LAMBDA Functions.

(OR)

12. Explain about Lists and Dictionaries in Python.

13. Explain about Inheritance in Python.

(OR)

14. Explain about Exception handling in Python.

15. Explain about Fancy Indexing, Sorting Array.

(OR)

16. Explain about Data Frames.

17. Explain about Univariate Plots - Histograms.

(OR)

18. Explain about combining and merging data sets, reshaping.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class : II BCA Hon/B.Sc Hon(CS, Mat, Stat, Phy, Chem, Ele/B.Voc Hon(WT&SD)

Max Marks : 60

Subject : Computer Science

Pass Mark : 24

Title of Paper : **Object Oriented Programming Through JAVA/OOPS Using Java**

Duration : 3Hrs

Paper Code : R23BCA303/R23CSC301/R23MCSC301/R23WT301

Time : 2pm-5pm

W.E.F : 2024-25

Date : 21-10-24

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain about the Benefits of OOPs?
2. Write a short note on JVM?
3. Write about Control Structures?
4. What is an Array? Write about One Dimensional Array ?
5. Explain about the Abstract Methods and Classes?
6. Write a short note on Inheritance?
7. Explain about Thread Scheduling?
8. Write about HTML Applet Tag?

SECTION - B

II. Answer ALL of the following questions? **5X8 = 40M**

9. Define and Differentiate Procedure Oriented Programming and Object Oriented Programming?

(OR)

10. Explain different types of Operators in JAVA?
11. Define Constructor? Explain different types of Constructors?

(OR)

12. Explain in details about looping statements with an example program?
13. Explain about Method Overloading and Overriding with examples?

(OR)

14. Give a brief account on Interface?
15. Explain about the Thread Priority?

(OR)

16. Define Package? Explain how to create and access package?
17. Explain about Exception handling in Java.?

(OR)

18. Explain about Applet Life Cycle?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class : II B.Sc Honours (AI)
Subject : Computer Science
Title of Paper : Introduction to OOP Using Java
Paper Code : R23AI303
W.E.F : 2024-25

Max Marks : 60
Pass Mark : 24
Duration : 3 Hrs
Time : 2pm-5pm
Date : 21-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Define OOP? Write its benefits.

2. Explain about JVM.

3. Difference between While and do While loop.

4. What is an Array? Explain about types of Arrays.

5. Write about Method Overriding.

6. Explain about Abstract methods and Classes.

7. Write a short note on Java API Package.

8. Explain HTML Applet Tag.

SECTION-B

II. Answer the following Questions **5X8=40M**

9. Explain Features of JAVA.

(OR)

10. What is an OOP? Explain OOPs concepts.

11. Explain about Decision-Making Statements with example.

(OR)

12. What is Constructor? Explain types of Constructors with syntax and example.

13. Define Interface? Explain Extending and Implementing Interfaces with example.

(OR)

14. What is an Inheritance? Write about types of Inheritances in detail.

15. Explain about Thread Scheduler.

(OR)

16. What is a Package? How to create and access our own packages?

17. Explain about Applet Life Cycle.

(OR)

18. What is an Exception? Explain about Exception Handling Methods.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Honours (Gen)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Social Media Marketing	Duration	: 3 Hrs
Paper Code	: R23MCSC303	Time	: 2pm – 5pm
W.E.F	: 2024-25	Date	: 21-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Write any four features of Digital Marketing and explain it.

2. What are the 5D's of Digital Marketing? Explain it.

3. Define Budget. Explain it.

4. Explain about Web Marketing Architecture.

5. What is SERP? Explain it.

6. Write about best practices in Digital Advertisement.

7. What is E-Commerce? Explain it.

8. Define Automation in the context of Social Media.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. What is Digital Marketing? Explain about features of Digital Marketing.

(OR)

10. Write any eight advantages of Digital Marketing.

11. Describe the Strengths and Applications of Digital Marketing.

(OR)

12. Explain about KPIs in Digital Marketing.

13. What is SEO? Explain about SEO.

(OR)

14. Discuss Google's guidelines for digital advertising.

15. Discuss the role of Online branding and Traffic building in Social Media.

(OR)

16. List and explain the Do's and Dont's of Social Media.

17. Explain the process and benefits of consumer engagement on Social Media.

(OR)

18. What is Social Media Analytics? Explain it.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (DS)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Web Technologies**	Duration	: 3 Hrs
Paper Code	: R23DS303	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 21-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain how to add images to your web page with examples.
2. Explain about hyperlinks in HTML with example.
3. Explain about CSS ID and CLASS.
4. How to define own style in CSS.
5. How to declare variable in Java script with example.
6. Explain any 4 string functions in Java Script.
7. Explain about status bar.
8. Difference between XML and HTML.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain about different formatting tags in HTML.

(OR)

10. Explain about types of Lists with example.

11. Explain about different types of CSS with examples.

(OR)

12. Explain about formatting blocks of information in CSS.

13. Explain about operators in Java Script.

(OR)

14. Explain about different Array functions in Java Script.

15. Write a code for Data validation in DHTML.

(OR)

16. Explain about Roll over buttons with example.

17. Explain in detail about DOM.

(OR)

18. Explain about different web services in XML.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BCA Honours	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Database Management System	Duration	: 3 Hrs
Paper Code	: R23BCA301	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Define DBMS. Explain it.

2. Write any four differences between Database and File System.

3. What is Primary Key? Explain it.

4. Explain about BCNF.

5. Define Inheritance. Explain it.

6. Explain about Generalization & Specialization.

7. Describe about Commit & Rollback.

8. Write about Triggers.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain about Three tire Schema Architecture.

(OR)

10. What is Database? Write the advantages and Disadvantages of Database System.

11. Explain about Codd's Rules.

(OR)

12. Define Normalization. Explain about 1NF and 3NF.

13. What is DML? Explain about DML Commands.

(OR)

14. Define Relationship. Explain about One to One and Many to Many Relationships.

15. Explain about different types of Joins in SQL with an example.

(OR)

16. Write about TCL and DCL Commands with Syntax and example.

17. What is an Exception? Explain about Exception Handling.

(OR)

18. Explain about Function and Packages.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BBA Hon(Business Analytics)	Max Marks	: 60
Subject	: Computers	Pass Mark	: 24
Title of Paper	: **Data Base Management** System	Duration	: 3Hrs
Paper Code	: R23BBACSC301	Time	: 2pm – 5pm
W.E.F	: 2024-25	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Write a short note on data and information?

2. Write about drawbacks of file based system?

3. Write about attribute classification?

4. Explain the advantages of ER Modeling?

5. Explain about Functional Dependencies?

6. Write the advantages of Relational Data Model?

7. Write a short on Sub Query?

8. Explain the advantages of PL/SQL?

SECTION - B

II. Answer ALL of the following questions? **5X8=40M**

9. Discuss about Classification of Database Management System?

(OR)

10. Explain about types of Data Models?

11. Explain in detail about Specialization and Generalization?

(OR)

12. Draw the complete ER Diagram for an any organization?

13. Explain in detail about CODD Rules?

(OR)

14. Give a brief account Relational Algebra?

15. Explain about different types of commands in SQL?

(OR)

16. Explain Aggregate Functions with an example Program?

17. Explain about Procedure and Functions of PL/SQL?

(OR)

18. Explain about Structure of PL/SQL?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Voc(IT,WT)	Max Marks	: 75
Subject	: Computer Science	Pass Mark	: 30
Title of Paper	: E-Commerce	Duration	: 3 Hrs
Paper Code	: ITEC302/WSEC302/R20WSEC302	Time	: 2pm – 5 pm
W.E.F	: 2023-24	Date	: 21-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X5=25M**

1. Explain about E-Commerce and media convergence
2. Explain about financial EDI standards
3. Explain about virtual Organizational structure
4. Explain about different types of digital documents
5. Corporate data warehouses
6. Write about risk associated with electronic payment system
7. Explain e payment system
8. Explain Justin time manufacturing and quick response system

SECTION-B

II. Answer ALL the following Questions **5X10=50M**

9. Explain types of E-commerce.

(OR)

10. Explain the advantages and disadvantages of E-commerce and it's framework .

11. Explain about Financial EDI with it's types?

(OR)

12. What are the advantages and limitations of EDI?

13. What is supply chain management explain its characteristics?

(OR)

14. Explain the functions of SCM.

15. Explain push based and pull based advertising .

(OR)

16. Explain about core document management in corporate digital library.

17. Explain about electronic fund transfer

(OR)

18. Explain about e-cash, Smart card, Credit cards ,Debit card?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BCA	Max Marks	: 75
Subject	: Computer Science	Pass Mark	: 30
Title of Paper	: Object Oriented Programming Through Java	Duration	: 3 Hrs
Paper Code	: R20BCA302	Time	: 2pm - 5pm
W.E.F	: 2021-22	Date	: 21/10/2024

SECTION-A

I. Answer any FIVE of the following Questions **5X5=25M**

1. Difference between OOP and Procedure Oriented Programming.
2. Explain Java Development Kit.
3. Explain different types of Arrays with example.
4. Explain different string functions in JAVA.
5. Explain Unchecked and Checked Exceptions.
6. Discuss about Thread Priorities.
7. Explain Serialization.
8. Explain advantages of Servlets.

SECTION-B

II. Answer ALL the following Questions **5X10=50M**

9. Explain different OOPS concepts.

(OR)

10. Explain features of JAVA.

11. Explain different data types available in Java.

(OR)

12. Explain control structures in Java.

13. Explain different Handling exceptions in Java.

(OR)

14. What is Thread? Explain thread life cycle methods with example.

15. Explain HTML Applet Tag.

(OR)

16. Explain JDBC Architecture.

17. Explain life-cycle of a servlet.

(OR)

18. Explain RML Architecture.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (DS)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Data Mining Techniques Using R	Duration	: 3 Hrs
Paper Code	: R23DS302	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 17-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. What is Datawarehouse ?

2. Briefly explain stages of Data mining Process.

3. What is Dimensionality reduction ?

4. Write a short note on Data Cleaning.

5. Define Attribute-Oriented Induction(AOI).

6. What is Tree Pruning?

7. Define Association Rule Mining.

8. Write about Hierarchal methods.

SECTION-B

II. Answer any FIVE of the following Questions **5X8=40M**

9. What is Data Mining? Explain Data Mining Techniques.

(OR)

10. Write about Data Mining Knowledge Representation.

11. Explain about Data Preprocessing.

(OR)

12. Explain about the Integration of Data Mining System with a Data Warehouse

13. Explain Pattern-Growth Approach for mining Frequent Item sets.

(OR)

14. Write about Apriori Algorithm?

15. Write about Tree pruning.

(OR)

16. Explain about Decision Tree Induction Algorithm.

17. Write about DBSCAN Algorithm.

(OR)

18. Explain about Association rule Data mining?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BCA Honours	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Software Engineering**	Duration	: 3 Hrs
Paper Code	: R23BCA304	Time	: 2pm – 5pm
W.E.F	: 2024-25	Date	: 18|10|2024.

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Define Software? What are the characteristics of Software.

2. Explain about waterfall Model.

3. Explain about Coordination and communication issues.

4. Write about DRE.

5. Explain about Risk Identification.

6. Explain about Analysis Model.

7. Write about Testing Objectives.

8. Write about Path Testing.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain about process Frame work.

(OR)

10. Explain about spiral Model.

11. Explain about the software management spectrum.

(OR)

12. Explain about size-oriented Metrics.

13. Explain about Decomposition Techniques.

(OR)

14. Explain about COCOMO.

15. Explain about cohesion and coupling.

(OR)

16. Explore about Human computer Interface Design.

17. Explain about SQA plan.

(OR)

18. Explain about white Box Testing.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Comp)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Computer Organization	Duration	: 3 Hrs
Paper Code	: R23CSC303	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 18/10/2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. What is Computer Register? Explain it.

2. Explain about Instruction Cycle.

3. Define CPU. Explain it.

4. Write a short note on Address Sequencing.

5. Define Cache Memory. Explain it.

6. Write a short note on Address Mapping Using Pages.

7. Explain about DMA.

8. What is Parallel Processing? Explain it.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain about Register Transfer, Bus and Memory Transfers.

(OR)

10. Explain in detail about Logic and Shift Micro Operations using Circuit Diagram and Functional table.

11. Write about Hard Wired Control and Micro Programmed Control.

(OR)

12. Explain in detail about Instruction Formats of CPU.

13. Define Memory. Explain about Associative Memory and Main Memory.

(OR)

14. Explain in detail about Memory Mapping and Concept of Virtual Memory.

15. What is Input-Output Processor? Explain about Input-Output Processor.

(OR)

16. Explain about Programmed I/O and Priority Interrupt.

17. What is an Algorithm. Write an Algorithm for Addition with an example.

(OR)

18. Explain about Arithmetic Pipeline and Instruction Pipeline.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Honours (Comp)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **E-commerce and Web Designing**	Duration	: 3 Hrs
Paper Code	: R23BCOMP301	Time	: 2pm – 5pm
W.E.F	: 2024-25	Date	: 18|10|2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain about advantages of E-Commerce.

2. Write a short note on Web 2.0 and its applications.

3. Explain about B2C.

4. Write a short note on Risk Management.

5. Explain about Compliance Management.

6. What is Web? Explain its features.

7. What HTML? Write its features.

8. Explain CSS properties with examples

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain about business models associated with E-Commerce.

(OR)

10. What is E-Commerce? Explain about 5C Business Model.

11. Explain about CRM and its features.

(OR)

12. Explain about B2B Software system.

13. Explain briefly the concept of cyber money.

(OR)

14. Explain about various electronic payment models available.

15. What is Tag? Explain about different types of Tags with example.

(OR)

16. Explain about html elements and attributes.

17. Explain about different types of selector in CSS.

(OR)

18. Explain about CSS Box Model.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS

III – SEMESTER END EXAMINATIONS

Class	: II BCA	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Object Oriented Programming Through Java	Duration	: 3 Hrs
Paper Code	: R20BCA302A	Time	: 2pm-5pm
W.E.F	: 2023-24	Date	: 21-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain Java Development Kit

2. Difference between Applications and Applets.

3. Explain different string functions in Java

4. Explain procedure to create user defined packages in Java

5. Discuss about thread priorities.

6. Explain thread synchronization

7. Explain Random access files.

8. Explain advantages of servlets.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain features of Java

(OR)

10. Explain Structure of Java

11. Explain different operators available in Java

(OR)

12. Explain control structures in Java

13. Explain different Handling exceptions in Java

(OR)

14. Explain Thread life cycle methods with example.

15. Explain JDBC Architecture

(OR)

16. Explain Life cycle of Applets in detail.

17. Explain RMI Architecture.

(OR)

18. Explain Networking classes in JDK

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (AI)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Operating Systems	Duration	: 3 Hrs
Paper Code	: R23AI302	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain the Evolution of Operating System?
2. What are the different operations that can be done by the Operating Systems?
3. Explain Process Control Block.
4. What is Thread? Explain types of Threads.
5. Write about Contiguous Allocation.
6. Explain about Echo Statement.
7. Write the advantages of Memory concept.
8. Explain about Command line arguments.

SECTION-B

II. Answer the following Questions **5X8=40M**

9. Explain Functions of Operating Systems.

(OR)

10. What is Operating System? Explain Operating System Services.

11. What is Process? Explain Preemptive Scheduling Algorithms.

(OR)

12. Explain about Critical Section Problem.

13. What is Paging? Explain Demand Paging.

(OR)

14. Explain about Page Replacement Algorithms.

15. Explain about Architecture of Unix.

(OR)

16. Write about any five Unix commands.

17. Explain about if statement with example.

(OR)

18. Explain about While statement with example programs.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hon (CS) /B.Voc Hon (WT)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Operating System	Duration	: 3 Hrs
Paper Code	: R23CSC304/R23WT303	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Define OS? Write its objectives and functions.

2. Explain about Process Abstraction.

3. What is a Thread? Explain.

4. Explain necessary conditions for Dead lock occurrence.

5. Write about Semaphores.

6. Explain about Virtual Memory.

7. Difference between Physical address space and Virtual address space.

8. Explain about pipes.

SECTION-B

II. Answer the following Questions **5X8=40M**

9. Explain Functions of Operating Systems.

(OR)

10. What is an Operating System? Explain different types of Operating System.

11. Explain about different System calls in detail.

(OR)

12. What is Scheduling? Explain Non-Preemptive Scheduling Algorithms.

13. Explain Process Synchronization problems.

(OR)

14. Define Dead lock? Write about Deadlock Prevention Techniques.

15. Explain about Memory allocation Strategies.

(OR)

16. What is Paging? Explain briefly.

17. Explain about Disk Scheduling Algorithms.

(OR)

18. What is a File? Explain different File Allocation Methods.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com (Comp)	Max Marks	: 75
Subject	: Computer Science	Pass Mark	: 30
Title of Paper	: Programming With C & C++	Duration	: 3 Hrs
Paper Code	: R20COMC303	Time	: 2pm-5pm
W.E.F	: 2021-22	Date	: 22-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X5=25M**

1. Explain about different Data types in C language.

2. Explain the difference between while and do-while.

3. What is recursion? Explain with example.

4. Explain different types of arrays with syntax.

5. Explain difference between C and C++.

6. Explain the concept of Function over loading.

7. Explain different rules of Operator Overloading.

8. Explain different Access Specifies.

SECTION-B

II. Answer ALL the following Questions **5X10=50M**

9. Explain different operators available in C.

(OR)

10. Explain different decision making statements.

11. Write different string functions with examples.

(OR)

12. Explain different types of Function in C language.

13. Explain the concept of OOPS.

(OR)

14. Explain the structure of C++.

15. Define Constructor? Explain types of Constructors with examples.

(OR)

16. Explain briefly about operator overloading with example.

17. Explain different types of Inheritance with examples?

(OR)

18. Write the advantages and disadvantages of Inheritance?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc (IOT) , B.Voc (IT)	Max Marks	: 75
Subject	: Computer Science	Pass Mark	: 30
Title of Paper	: OOPs With Python/Python Programming	Duration	: 3 Hrs
Paper Code	: R20IOTOP301/IOTOP301/ITPP301	Time	: 2pm-5pm
W.E.F	: 2019-20	Date	: 22-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X5=25M**

1. Write the features of Python.
2. Explain Python path setting.
3. Explain Lists in Python.
4. Explain Tuples in Python.
5. Explain Functions in Python.
6. Discuss Modules in Python.
7. Explain files in Python.
8. Explain Search function in Python.

SECTION-B

II. Answer ALL the following Questions **5X10=50M**

9. Explain different Operators in Python.

(OR)

10. Explain Conditional Statements in Python.

11. Explain different Methods of Sets with example.

(OR)

12. Explain different Methods of Dictionary's with example.

13. Explain different types of functions with example.

(OR)

14. Explain different types of Packages with example.

15. Explain Exception Handling in Python.

(OR)

16. Explain Reading and Writing data in to files in Python.

17. Explain OOPS concepts in Python.

(OR)

18. Explain about Threads and Multithreading in Python.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS

III – SEMESTER END EXAMINATIONS

Class	: II B.Voc (WT)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Advanced Angular- JS	Duration	: 3 Hrs
Paper Code	: R20WSAAJ303A	Time	: 2pm – 5pm
W.E.F	: 2023-24	Date	: 23/10/2024.

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain Difference between Angular JS and Angular2.

2. Explain about Angular 2 components.

3. Explain about Styling angular2 components.

4. Discuss about Two way data binding in angular2.

5. Explain about Class binding in angular2.

6. Briefly explain about Interfaces in Angular2.

7. Explain about custom pipes in Angular2.

8. Discuss about Error Handling in Angular2.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain about Angular2 Modules.

(OR)

10. Explain about Angular2 Architecture.

11. Explain about angular 2 Nested components.

(OR)

12. Explain Angular component input properties and output properties.

13. Explain about Style Binding in Angular 2.

(OR)

14. Explain Event binding.

15. Discuss about Angular 2 templates.

(OR)

16. Explain Angular interpolation.

17. Discuss about Angular2 Routing.

(OR)

18. Explain about Dependency injection in Angular2.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Voc Honours (SD)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Angular JS**	Duration	: 3 Hrs
Paper Code	: R23WT304	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 18/10/2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. What is Java script? Explain its Advantages.
2. Explain about JSON.
3. Explain about objects in Java Script.
4. Differentiate between Java script and angular JS.
5. Differentiate between if and if else statements in Java Script.
6. List out basic Directives of Angular JS.
7. Explain about the text area elements.
8. How do you handle form submissions in Angular JS.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain about Data types in Java Script.

(OR)

10. Explain about operators available in Java Script.

11. What is a loop? Explain the looping statements available in Java script.

(OR)

12. Explain in detail about Java script operators.

13. Explain about Angular expressions.

(OR)

14. Explain about Angular JS Modules.

15. Explain about Built – in Directives in Angular JS.

(OR)

16. Explain about ng- click Directives in Angular JS.

17. Explain about Validation forms.

(OR)

18. Explain about Form element.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

Computer Science III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours /BCA Honours	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Data Structures/Data Structures Using C	Duration	: 3 Hrs
Paper Code	: R23BCA302/R23CSC302	Time	: 2pm – 5pm
W.E.F	: 2024-25	Date	: 17-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain about ADT.

2. Explain about Time complexity.

3. Explain about the types of Linked List.

4. Explain about operations of Linked List.

5. Write about the advantages of Stack Data structures.

6. Explain about Bubble sort.

7. Write about the Tree terminology.

8. Explain Applications of Graphs.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain about Data Structures Operations.

(OR)

10. Explain about classifications of Data Structures.

11. Explain about Circular Linked List.

(OR)

12. Write a program to implement Single Linked List.

13. Write a program to implement Stack operations using Array concept

(OR)

14. Explain about Queue and its operations.

15. Explain about Binary Search.

(OR)

16. Explain about Merge Sort.

17. Explain about the BFS.

(OR)

18. Explain about the DFS.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Hon (Gen, TP, Comp) BBA Hon, BBA Hon(BA), B.Sc Hon	Max Marks	: 50
Subject	: Commerce	Pass Mark	: 20
Title of Paper	: **Project Management**	Duration	: 2 Hrs
Paper Code	: R23SDP301	Time	: 2pm-4pm
W.E.F	: 2024-25	Date	: 15.10.2024

SECTION-A

I. Answer any FOUR of the following Questions **4X5=20M**

1. Need for project management.

2. Role of project manager

3. Process of project identification.

4. Sources of new project ideas

5. What is network analysis

6. Need for project planning.

7. Project break even point

8. Process of project planning

SECTION-B

II. Answer any THREE of the following Questions **3X10=30M**

9. Explain the essential elements of project management.

10. Discuss the types project.

11. What is Finance. Explain the scope of financial feasibility.

12. What is project evaluation. Explain various types of evaluation

13. Define project delay. What causes a project to get delayed

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BBA Honours	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: **Business Laws**	Duration	: 3Hrs
Paper Code	: R23BBA301	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 16-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X12=60M**

1. Define contracts. Explain various types of contracts.

(OR)

2. What are the various modes of discharge of contracts.

3. Define negotiable instruments. Explain various kinds of negotiable instruments.

(OR)

4. What is partnership firm? Discuss various rights and duties of partners

5. Define Company. Explain the types of companies

(OR)

6. Discuss various types of meetings and resolutions under companies act 2013.

7. What are the essentials of contract of sale and explain various kinds of goods.

(OR)

8. Differentiate between implied conditions and implied warranties.

9. What is the digital signature. Explain the legal aspects regarding digital signature

(OR)

10. Write an essay on consumer protection councils .

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class : II B.Com Honours (Gen TP, Comp)
Subject : Commerce
Title of Paper : Advanced Accounting
Paper Code : R23COM301
W.E.F : 2024-25

Max Marks : 60
Pass Mark : 24
Duration : 3 Hrs
Time : 2pm – 5pm
Date : 16-10-2024

SECTION-A

I. Answer ALL the following Questions **5X12=60M**

1. Define Non-Profit Organization? Explain different types of Non-Profit Organizations?

(OR)

2. From the following Receipts and Payments Account prepare final Accounts of a sports club for the year ending 31-3-2018:

Receipts and Payments Account

Receipts	Rs.	Payments	Rs.
To Subscriptions	15,000	By Land	10,000
To Donations	50,000	By Buildings	40,000
To Legacies	10,000	By Furniture	10,000
To Entrance Fees	5,000	By Sports Materials	5,000
To Life Membership Fees	3,000	By Sports Expenditure	6,000
To Sports Income	17,000	By General Expenses	1,000
To Sundries	5,000	By Magazines	1,500
To Sale of Old Papers	500	By Ground Expenses	4,000
		By Balance c/d	28,000
	1,05,500		1,05,500

Half of the donations, legacies, entrance fees and life membership fee are to be capitalized. Subscriptions still outstanding is Rs. 5,000. Depreciate fixed asset by 5% and sports material by 10%.

3. Explain single entry system? And it's disadvantages?

(OR)

4. Mohan has not maintained proper books of accounts. He furnished the following information before you. Prepare necessary statements for the year ending 31.3.2008 and find out the profit or loss.

Particulars	1.4.2020	31.3.2021
Cash in hand	5,000	6,000
Bank overdraft	45,000	40,000
Stock	60,000	62,000
Creditors	38,600	37,200
Debtors	30,000	32,000
Bills receivable	40,000	38,000
Bills payable	60,000	57,000
Buildings	50,000	50,000
Furniture	5,000	5,000

His drawings during the year Rs. 750 per month. Depreciation on buildings at 5%, on furniture at 10%, reserve for doubtful debts at 5% on sundry debtors.

[P.T.O]

5. What is the difference between Hire purchase system and Instalment purchase system?

(OR)

6. Lodhi Singh purchased a machine on Hire purchase system. The total cash price of the machine is Rs. 31,960. Payable Rs. 8,000 down payment and three installments of Rs. 12,000, Rs. 10,000 and Rs. 4,000 payable at the end of the first, second and third year respectively. Interest is charged at 5% p.a. Charge depreciation on straight line method. Pass necessary journal entries and give necessary ledger account in the books of Lodhi Singh.

7. Explain partnership? Features of Partnership?

(OR)

8. The Balance Sheet of A and B as on 31.12.2019 is given below who share profits and losses in the ratio of 2:1.

Liabilities	Rs.	Assets	Rs.
A's Capital	45,000	Furniture	6,000
B's Capital	25,000	Freehold property	20,000
General reserve	24,000	Debtors	60,000
Creditors	16,000	Stock	12,000
		Cash	12,000
	1,10,000		1,10,000

They agreed to admit 'C' into the firm on the following terms:

A) 50% of the general reserve is to remain as provision for doubtful debts.

B) 'C' will bring in Rs. 21,000 of which Rs. 9,000 will be treated as his share of goodwill to be retained in the business.

C) Closing stock is to be valued at Rs. 10,500.

D) 'C' is entitled to one -fourth share of the profit.

E) Depreciation is to be provided in furniture @5%.

Prepare necessary ledger accounts a balance sheet of new firm.

9. What is dissolution of a firm? State how and under what circumstance a firm may be dissolved?

(OR)

10. Anil, Balu, Chandra and Dasu are in Partnership and they decided to dissolve the partnership on 31st December 2015. When their balance sheet showed as under.

Liabilities	Rs.	Assets	Rs.
Creditors	76,000	Cash in hand	4,000
Bills Payable	76,000	Cash at bank	20,000
Capital Accounts:		Land & Buildings	1,80,000
Anil	80,000	Capital Accounts:	
Balu	40,000	Chandra	48,000
		Dasu	20,000
	2,72,000		2,72,000

The assets realized Land and Buildings Rs. 2,20,000. Goodwill Rs. 40,000. The expenses of realization amounted to Rs. 8,000. 'Chandra' has become insolvent and Nothing was realized from his estate. Show realization and capital accounts of partners.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BBA Hon(Business Analytics)	Max Marks	: 60
Subject	: Commerce & Management	Pass Mark	: 24
Title of Paper	: **Accounting For Managers**	Duration	: 3Hrs
Paper Code	: R23BBBA301	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 16-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X12=60M**

1. What is Accounting? Explain the Accounting Conventions?

(OR)

2. Prepare general journal entries for the following transactions of a business called Pose for Pics in 2020

Aug. 1: Hashim Khan, the owner, invested Rs. 57,500 cash and Rs. 32,500 of photography equipment in the business.

04: Paid Rs. 3,000 cash for an insurance policy covering the next 24 months.

07: Services are performed and clients are billed for Rs. 10,000.

13: Purchased office supplies for Rs. 1,400. Cash paid Rs. 400 and remaining outstanding.

20: Received Rs. 2,000 cash in photography fees earned previously.

24: The client immediately pays Rs. 15,000 for services to be performed at a later date.

29: In addition, the business acquires photography equipment. The purchase price is Rs.100,000, pays Rs. 25,000 cash and signs a note for the balance.

3. What is a Subsidiary Book? Explain various types of Subsidiary Books?

(OR)

4. From the following particulars make cash book of Ghulam Fatima Trading Co. for the month of November, 2020:

1 Cash balance (Cr) Rs. 2,000; Bank balance Rs. 40,000.
4 Cash sales Rs. 3,700; Credit sales Rs. 1,800 would be received at near future.
6 Paid Ahmed & Bros.by cash Rs. 500; Received cash by debtors Rs. 1,800.
12 Paid to vendor by means of check worth Rs. 2,700.
13 Paid Utility bills in cash Rs. 250; Bought goods by check Rs. 750
19 Drew from Bank for office use Rs. 160; Personal withdrawal of cash Rs. 1,000.
20 Received a check from Hamid Rs. 2,700 and deposited into the bank.
21 Received by check from Munir Rs. 1,360; Discount Rs. 140 (not deposited).
25 Cash sales Rs. 2,100; Paid wages by bank Rs.1,500.
28 Deposited Munir's check into bank.
29 Payment by check to Anees for Rs. 175; Discount received Rs. 25.
30 Munir's check has been dishonored and return by bank.

5. Describe the importance of Suspense Account in Rectification of Errors?

(OR)

[P.T.O]

6. There are several Mistakes in the Umer & Brothers (Pvt.) Ltd. Trial Balance. You are requested to identify Errors and make corrected Trial Balance?

SNo	Heads of Account	Ref	Debit	Credit
1	Umer Owner Equity			1,551
2	Umer Drawings		560	
3	Equipment's		2,850	
4	Sales			2,850
5	Due from Customers			530
6	Purchases		1260	
7	Purchase Returns		364	
8	Bank Loan			996
9	Creditors		528	
10	Taxes		720	
11	Cash In Hand		226	
12	Note Payable		680	
13	Inventory			264
14	Repair		461	
15	Return Inward			98
Total			Rs.7649	Rs.6289

7. Explain the reasons for the difference between cash book and pass book balances?

(OR)

8. From the following particulars, you are required to find out the errors in cash book and bank statement by using missing method and prepare Bank Reconciliation Statement as on 31-12-2020, for Chand Bibi Ltd:

i. Bank balance overdraft as per cash book 80,000

ii Check recorded for collection but not sent to the bank 10,000

iii Credit side of the cash book cast short ... 1,000

iv Premium on proprietor's Life Insurance Policy (LIP) paid on standing order 5,000

v Bank Charges recorded twice in the cash book 100

vi Customer's check returned by the bank as dishonored ... 4,000

vii Bill Receivable collected by the bank directly on the behalf of company 20,000

viii Check received entered twice in the cash book 6,000

ix Check issued but dishonoured on technical grounds 3,000

x A checks deposited into the bank of worth Rs. 45,000 but Rs. 8,000 check was not collected by bank

9. What is Final Accounts? Explain its Objectives?

(OR)

Continued To Next Page

J. The following are the balances of Ashok Kumar as on 30th June 2019:

Debit	Rs.	Credit	Rs
Cash in Hand	540	Sales	98,780
Cash at Bank	2,630	Returns Outward	500
Purchases	40,675	Capital	62,000
Returns Inward	680	Sundry Creditors	6,300
wages	8,480	Rent	9,000
Fuel and Power	4,730		
Carriage on Sales	3200		
Carriage on Purchases	2040		
Stock	5760		
Buildings	22,000		
Freehold land	10,000		
Machinery	20,000		
Investment	10,000		
Patents	7,500		
Salaries	15,000		
General Expenses	3,000		
Insurance	600		
Drawings	5,245		
Sundry Debtors	14,500		

Taking into account the following adjustments Prepare the trading and Profit & loss account and Balance Sheet as on 30th June 2023

1. Stock on Hand on 30th June 2023 is Rs.6,800
2. Machinery is to be Depreciated @ 10% and Patents @20%
3. Salaries for the month June 2023 amounting to Rs.1,500 were unpaid
4. Insurance includes the premium of Rs.170 on a policy expiring on 31st December 2023.
5. Bad Debts are Rs.725.
6. Rent received in advance Rs.1000
7. Interest on investment of Rs.2,000 is accrued.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS

III – SEMESTER END EXAMINATIONS

Class	: II B.Com (Gen, TP, Comp & Log) BBA, BCA	Max Marks	: 50
Subject	: Commerce	Pass Mark	: 20
Title of Paper	: Retailing	Duration	: 2 Hrs
Paper Code	: R20SDC302B	Time	: 2pm - 4 pm
W.E.F	: 2022-23	Date	: 16-10-2024

SECTION-A

I. Answer any FOUR of the following Questions **4X5=20M**

1. Explanation about Retailing

2. Growth of Retailing

3. Store Location

4. Stores Deign

5. Human resource in retailing

6. Services to Customers

7. Objectives of Retailing

8. Sales Promotion

SECTION-B

II. Answer any THREE of the following Questions **3X10=30M**

9. Briefly explain Role of Retailing

10. Explain the various Types of Retailing

11. How different factors influencing selection of Location

12. Explain different Types of retail outlets

13. Briefly explain visual merchandising activities

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
III – SEMESTER END EXAMINATIONS

Class	: II BBA Honours	Max Marks	: 60
Subject	: Commerce & Management	Pass Mark	: 24
Title of Paper	: **Organisational Behaviour**	Duration	: 3Hrs
Paper Code	: R23BBA302	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 17-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X12=60M**

1. What is Perception? Describe the Process Perception?

(OR)

2. What is meant by Organizational Behaviour? Explain the factors influencing the Organizational Behaviour?

3. What do you mean by Group Dynamics? Write the stages in Formation of Groups?

(OR)

4. Describe the application of Transactional Analysis and Johari Window?

5. What is Leadership? Explain different styles of Leadership?

(OR)

6. Briefly explain the impact of Leadership on effectiveness of Groups?

7. What is a Change? Discuss the factors driving the Organisational Change?

(OR)

8. Explain the significance and process of Organizational Development?

9. Distinguish between organizational Culture and Organizational Climate?

(OR)

10. What do you mean by Organizational Effectiveness? Explain the indicators of Organizational Effectiveness?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Honours (Gen, Comp)	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: Income Tax	Duration	: 3 Hrs
Paper Code	: R23COM302	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 17-10-2024

SECTION-A

I. Answer ALL the following Questions **5X12=60M**

1. Write any 10 Exempted incomes u/s 10

(OR)

2. Mr. Aleph joy furnishes the following details for his income for the previous year 2023-24.

i) Income accrued in America but received in India Rs.19,000.
ii) Interest on U.K Govt securities 1/3 rd of which received in India, Rs. 15,000
iii) Salary income received in India for services rendered In Germany Rs.28,000.
iv) Income from Agriculture in Bangladesh received and spent there only Rs.16,000.
v) Income from profession in China received there. The Profession was set up in India Rs.12,000.
vi) Income accrued in India but received in China Rs.14,000
vii) Income earned outside India in preceding years but remitted in India during previous year Rs.36,000.
viii) Gift in foreign Currency from a relative received in India Rs. 10,000

Compute the total Income of Aleph Joy for the A·Y: 2024-2025 If he is

1) Resident 2) Not ordinarily Resident and 3) Non-Resident

3. What is perquisite & Explain various types of perquisites?

(OR)

4. Mr. Joy Kireet, working in ABC Company Pvt Ltd., Bangalore has furnished the following details of his income for the year 2022-23.

Compute his income from Salary for the A-Y: 2024-25

a) Basic Salary Rs.40,000.
b) Dearness Allowance enters into all retirement benefits Rs. 24,000
c) Fixed percentage of Commission on Sales Rs.15,000 P.M.
d) Bonus Rs.65,000.
e) HRA Rs. 12,500 P.M (Rent paid Rs.10,600 PM)
f) Transport Allowance & 4,000 P.M
g) Reimbursement of Medical Expenses Rs.2500 for treatment taken in private Hospital.
h) Children Education allowance Rs. 600.P.M. per child for two children and children hostel allowance Rs.1000 P.M for two children.

5. Explain the Revenue and Capital Nature of Incomes and Expenses?

(OR)

6. Mrs. Sushma (Resident) owns two houses in Bangalore, she has letout both the houses throughout the year for residential purpose

[P.T.O]

	HOUSE-I	HOUSE-II
Muncipal Value	4,00,000	12,00,000
Fair Rental Value	7,20,000	7,20,000
Rent Received	4,80,000	8,00,000
Standard Rent	6,00,000	6,00,000
Reparis	72,000	1,00,000
Muncipal Tax paid	40,000	120,000
Insurance Premium paid	48,000	70,500

On 1st April 2023, she bought residential House for self occupation for Rs.10,00,000 by taking a housing loan in Canara Bank.
Loan amount was Rs. 7,00,000 and rate of interest 12% P.A. Compute taxable income from House property for the Assessment year 2024-25.

7. What is capital Asset? Explain the types of Capital Assets?

(OR)

8. From the following incomes of Mr. Kireet (Resident) for the year ended 31-3-2023 Compute his income from other sources-

1) Directors fee	Rs. 10,000
2) Interest on Bank deposits	Rs. 3,000
3) Income from undisclosed sources	Rs. 12,000
4) Winnings floor lotteries (Net)	Rs. 28,000
5) Royalty on Book written	Rs. 8,000
6) Income from lectures delivered	Rs. 5,000
7) Interest on loan given to relative	Rs.7,000
8) Interest on tax free debentures of a Company (Net)	Rs.3,600
9) Interest on SBI A/c (Savings Bank)	Rs.600

9. Explain the deduction u/s 80G ?

(OR)

10. Kishore gives the following information of his income for the P.Y. 2023-24. Compute total taxable income for the AY 2024-25.

1) Rent Received P.M	Rs. 9,000
2) Income from Business	Rs. 2,00,000
3) Income from Salary	Rs 4,10,000
4) Income from other sources	Rs.1,02,000
He makes payments towards	
(a) Life insurance premium	Rs.25000
(b) Donation to P.M Relief fund	Rs.15,000
(c) Interest on Education loan on his son	Rs.8,500
(d) Medical insurance premium on his health	Rs.12,000

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Hon(TP)	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 40
Title of Paper	: **Income Tax-II**	Duration	: 3Hrs
Paper Code	: R23COMT302	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 17-10-2024

SECTION-A

I. Answer ALL of the following questions **5X12=60M**

1. Explain Admissible and Inadmissible expenses.

(OR)

2. The following is the P&L A /c of Mr. Ranjith for the year ending 31st March 2022.

Particulars	Rs.	Particulars	Rs.
To Salaries	1,65,000	By Gross Profit	2,50,000
To Office expenses	18,000	By Bad debts recovered	10,000
To Depreciation	14,000	By Dividend	3,000
To GST	9,000	By Commission	10,000
To Legal expenses	8,000	By Rent of house property	9,000
To Income Tax	7,000	By Brokerage	10,000
To Patents purchased (1/8th)	12,000	By Sundry receipts	5,000
To Repairs	6,000	By Share of income from HUF	3,000
To Donation	2,000		
To Provision for bad debts	3,000		
To General expenses	12,000		
To Net Profit	44,000		
	3,00,000		3,00,000

Additional information:

a. Salary includes Rs.6,000 paid to workers employed at home.

b. Legal expenses includes Rs.1,000 paid to the advocate in connection with personal case.

c. General expenses includes Rs.4,000 as contributed to staff welfare fund.

d. Out of the bad debts recovered only Rs.4,000 were allowed as deduction earlier.

Compute his income from business for the assessment year 2022 – 23.

3. Explain about Cost of improvement and Cost of Acquisition.

(OR)

4. Mr. Prasanna sold his residential house on 1 – 1 – 2022 for Rs.35,06,000 which he had purchased in 2001 02 for Rs.2,00,000. He spent Rs.6,000 for sale of the house. He also spent Rs. 1,50,000 on the construction of new house and deposited Rs. 1,00,000 under capital gains account scheme on 28 – 3 – 2022. The CII for 2001 – 02 and 2021 – 22 are 100 and 317 respectively. Compute taxable capital gains for the Assessment year 2022 – 23.

[P.T.O]

5. Explain Deduction U/S 57.

(OR)

6. Mr. Rahul investments during the year ended 31 – 3 – 2022 consisted of the following.

a. Rs. 25,000, 9% Govt. securities.

b. Rs. 20,000, 11% Delhi Corporation Bonds.

c. Rs. 30,000, 12% Bombay Port Trust Bonds.

d. Rs. 5,000, 7 year PO National Savings Certificates.

e. Rs. 10,000, 7% National Plan Certificates.

f. Rs. 15,000, 8% Govt. of England bonds.

g. He paid Rs.150 as commission for collecting the interest income.

h. SBI savings bank interest in Rs.19,500.

Compute his taxable income from other sources.

7. Explain about Deemed Incomes.

(OR)

8. Following are the details of Mr. Sharath for the previous year 2021 – 22

i. Gross salary Rs.5,54,000.

ii. Income from house property (Computed) Rs. 72,000

iii. Income from business (Computed) Rs. 3,37,000.

iv. Income form profession of consulting (Computed) Rs.1,18,000

v. Short term capital gain on sale of Jewellery Rs.57,000

vi. Short term capital gain on sale of shares Rs.49,000 (Not subject to STT)

vii. Long term capital gain on sale of land Rs. 1,33,000.

viii. Income from other sources (including lottery winnings of Rs.1,00,000 Net) Rs. 1,79,000 the PY 2021 – 22 he had paid an advance tax of Rs.49,000 and tax was deducted at source from lottery winnings at the rate of 30%.

Compute the total income of Mr. Sharath for the assessment year 2022 – 23 if he is a resident aged about 58 years, under existing tax regime and alternative tax regime.

9. Explain provisions laid down in IT Act in regard set off and carry forward losses.

(OR)

10. Write about set off and carry forward losses.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BBA Honours (Analytics)	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: **Human Resource Management**	Duration	: 3 Hrs
Paper Code	: R23BBBA302	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 17-10-2024

SECTION-A

I. Answer ALL the following Questions **5X12=60M**

1. Define Human Resource Management and explain its characteristics.

(OR)

2. Explain the functions of Human Resource Management.

3. Explain the need, importance and objectives of HRP.

(OR)

4. Explain the pre requisites for successful Human Resource planning.

5. What is Recruitment? Explain the factors Governing Recruitment.

(OR)

6. What is meant by selections? Explain the steps involved in selection process.

7. Define Training and explain methods of training.

(OR)

8. What are the differences between training and development.

9. What is meant by compensation Management? Explain the components of compensation.

(OR)

10. Define performance Appraisal and explain the process of performance Appraisal.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Hon(General, TP)	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: **Business Laws**	Duration	: 3Hrs
Paper Code	: R23COM303	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 18/10/2024

SECTION-A

I. Answer any ALL of the following Questions **5X12=60M**

1. Explain essential elements of valid contracts.

(OR)

2. Discuss about Indian contract Act, 1872.

3. Define valid offer. Explain the essential elements of a valid offer.

(OR)

4. What is Acceptance. Explain the essential elements of Acceptance.

5. What are the rules regarding minor's agreement.

(OR)

6. Explain the rules regarding contingent contracts.

7. Explain the rights of an unpaid vendor under the sale of goods act.

(OR)

8. Write an essay on consumer protection councils.

9. What are the legal aspects regarding digital signature.

(OR)

10. Explain the need and objectives of the information technology Act, 2000.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Honours (Gen, TP)	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: **Banking Theory And Practice**	Duration	: 3 Hrs
Paper Code	: R23COM304	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 19.10.2024

SECTION-A

I. Answer ALL the following Questions **5X12=60M**

1. Define Bank and explain kinds of Banks.

(OR)

2. Explain about the functions of commercial banks.

3. Explain functions of unit banking and branch banking.

(OR)

4. Explain about internet banking – ATMS – RTGS - NEFT.

5. Explain advantages and disadvantages of Indigenous Banking.

(OR)

6. Explain about the functions of NABARD.

7. Explain special relationship between Banker and Customer.

(OR)

8. Define banker and customer and explain types of customers.

9. Explain the duties and responsibilities of collecting banker.

(OR)

10. Explain about the payment Gateways.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BCA	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: Accounting and Financial Management	Duration	: 3 Hrs
Paper Code	: R20BCA301A	Time	: 2pm - 5 pm
W.E.F	: 2023-24	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Scope of Accounting

2. Purpose of Balance sheet

3. Objectives of Ratio Analysis

4. Elements of Cost

5. Purpose of Budget

6. Debtor's Ledger

7. Marshalling of balance sheet

8. Break Even Analysis

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Jeyaseeli is a sole proprietor having a provisions store. Following are the transactions during the month of January, 2023. Journalise them.

Jan.		Rs.
1	Commenced business with cash	80,000
2	Deposited cash with bank	40,000
3	Purchased goods by paying cash	5,000
4	Purchased goods from Lipton & Co. on credit	10,000
5	Sold goods to Joy and received cash	11,000
6	Paid salaries by cash	5,000
7	Paid Lipton & Co. by cheque for the purchases made on 4th Jan.	
8	Bought furniture by cash	4,000
9	Paid electricity charges by cash	1,000
10	Bank paid insurance premium on furniture as per standing instructions	300

(OR)

10. What is Accounting? Explain the objects and limitations of accounting?

11. Draw the formats of profit and loss account and balance sheet?

(OR)

12. What is a Financial Statement? Describe the objectives for preparation of financial Statement?

13. Describe the importance of cash flow statement?

(OR)

14. The following is the summary of cash transactions of Anju Ltd. For the year ended March 31st 2022

[P.T.O]

Receipts	Rs	Payments	Rs
Balance as on 01.04.2021	150	Payment to creditors	6,000
Issue of Equity shares	900	Purchase of fixed assets	600
Receipts from customers	8,400	Expenses	600
Sale of fixed assets	300	Wages and salaries	300
		Tax	750
		Dividends	150
		Repayment of bank loan	900
		Balance as on 31.3.2022	450
	9,750		**9,750**

You are required to prepare a cash flow statement for the year ended March 31.2022 in accordance with AS-3(revised) using Direct Method.

15. Prepare a Cost sheet in the book of M.B. Rahman from the following particulars

Opening Stock:-	Raw Material = Rs. 5000
	Finishing Goods =Rs.4000
Closing Stock: -	Raw material=Rs.4000
	Finishing Goods =Rs.5000
	Raw material Purchased=Rs.50,000
	Wages paid to Labourers =Rs.20,000
	Chargeable Expenses = Rs.2000
	Rent and taxes =Rs. 7,400
	Power =Rs.3000
	Experimental expense = Rs.600
	sale of wastage of material =Rs.200
	Management Salary = Rs. 4,000
	office printing and Stationery =Rs.200
	Salaries to sales man =Rs.2000
	Commission to Travelling agents =Rs.1000
	Sales =Rs.1,00,000

(OR)

16. Explain different types of Cost Centres?

17. Discuss in brief the classification of budgets?

(OR)

18. Distinguish between Shares and debentures?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
III – SEMESTER END EXAMINATIONS

Class	: II B.Com (Gen, TP, Comp, Log)	Max Marks	: 75
Subject	: Commerce	Pass Mark	: 30
Title of Paper	: Advanced Accounting	Duration	: 3 Hrs
Paper Code	: R20COM301	Time	: 2pm-5pm
W.E.F	: 2022-23	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X5=25M**

1. Explain the features of single entry system.
2. Write the features of hire purchase system.
3. Explain about partnership deed.
4. Garner Vs murray case
5. Distinguish between fixed and fluctuating capital accounts.
6. Explain the types of good will.
7. Write short note on Incomes and expenditure account.
8. Write about dissolution of partnership.

SECTION-B

II. Answer any FIVE of the following Questions **5X10=50M**

9. Differences between Receipts and Payments account and Income and expenditure account.

(OR)

10. From the following details prepare Receipts and Payments account.

Opening cash in hand (1.1.04)	500
Opening bank balance (1.1.04)	4800
Subscriptions collected	11000
Entrance fee received	1000
Salary paid	3000
Rent paid	1200
Furniture purchased	2000
Tournament expenses	3000
Entertainment expenses	1500
Periodicals	1200
Miscellaneous expenses	300
Cash in hand at cost (31.12.01)	800

11. Explain the advantages and limitations of single entry system.

(OR)

12. A trader his book by the single entry method his position on 31.12.2019 was as Following

[P.T.O]

Particulars	2019 Rs	2020 Rs
Cash at bank	9,000	12,000
Stock	60,000	75,000
Machinery	1,50,000	1,35,000
Debtors	90,000	1,35,000
Creditors	69,000	75,000

During the year trader Introduced 30000 as future capital in the business and withdraw 900/- per month from the above you are required to ascertain the profit or loss made by the traders for the year ended 31.12.2020.

13. Explain the differences between hire purchase system and Installment purchase system.

(OR)

14. On 01.01.2006 a mini bus was purchased on to hire purchase system for 160000 Rs. 40000 was paid on signing the agreement and the balance by three installments of 50000 each to be paid on last day of a each year.
Depreciation is to be charged at 10% on the diminishing balance method prepare necessary ledger account in the books of hire purchaser and vendor.

15. Explain the features of Partnership.

(OR)

16. Anubha and Kajal are partners of a firm sharing profits & losses in the ratio of 2:1 Their capital were Rs. 90000 and Rs. 60000. The Profit during the year were Rs. 45000. According to partnership deed both partners are allowed salary Rs. 700 per month to Anubha and Rs 500 per month to Kajal. Interest allowed on capital @ 5% P.A. The drawings at the end of the period were Rs. 8500 for Anubha and Rs. 6500 for Kajal. Interest is to be charged @ 5% P.A on drawings prepare partners capital accounts assuming that the capital account are fluctuating.

17. What are the adjustments that are needed in the books of accounts at the time of admission of a partner.

(OR)

18. The balance sheet of A & B on 31.12.2020 is given below. They share profits & loss in the ratio of 2:1

Liabilities	Rs	Assets	Rs
A – Capital	40,000	Building	20,000
B – Capital	30,000	Furniture	6,000
General Reserve	24,000	Stock	12,000
Creditors	16,000	Debtors	60,000
		Cash	12,000
	1,10,000		1,10,000

They agreed to admit C into the firm on the term
(i) 'C' will being 12000/- towards capital and 9000 towards good will.
(ii) 'C' will be given 1/4th share in profit.
(iii) Depreciation of furniture is provided 5%.
(iv) Stock is to be revalued Rs. 10500
Give necessary ledger account & balance sheet of new firm.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BBA	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: Organisation Behaviour	Duration	: 3 Hrs
Paper Code	: R20BBA301A	Time	: 2pm - 5pm
W.E.F	: 2022-23	Date	: 19-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Models of OB.
2. Define Values and its types?
3. Define Perception?
4. Define Leadership and its Styles?
5. Define Organizational Change and its Types?
6. Explain about the formation of Attitude?
7. Define Group and its types?
8. Define Organizational Development and its Process?

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain about Challenges and Opportunities of OB?

(OR)

10. Explain about role of Manager in OB?
11. Discuss about Herzberg's Two-Factor Theory of Motivation?

(OR)

12. Discuss about Mc.Gregor Theory X and Theory Y of Motivation?
13. Discuss about Various theories of Learning?

(OR)

14. Explain about the Process of Perception?
15. Discuss in detail about Johari Window?

(OR)

16. Discuss about various theories of Leadership?
17. Explain the features of Organizational Culture?

(OR)

18. Explain about various types of Organizational Conflicts?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class : II BCA
Subject : Commerce
Title of Paper : Accounting and Financial Management
Paper Code : R20BCA301
W.E.F : 2021-22

Max Marks : 75
Pass Mark : 30
Duration : 3 Hrs
Time : 2pm - 5pm
Date : 19.10.2024

SECTION-A

I. Answer any FIVE Questions **5X5=25M**

1. Debtor's ledger and creditor's ledger.
2. What are the types of cash book?
3. Components of financial statements.
4. Format of trading account. .
5. Objectives of Ratio Analysis.
6. Elements of Cost
7. Meaning of Shares and debentures.
8. Explain Break even analysis

SECTION-B

II. Answer ALL the following Questions **5X10=50M**

9. Journalise the following transactions in the books of Mr. Kartikey Atul.2012 January

Date	Particulars
2012 Jan, 2	Started a business with Cash Rs. 10,00,000
04	Purchases goods from Paul Rs. 2,00,000
06	Sold Goods for cash Rs. 30,000
08	Goods purchased for cash Rs. 1,00,000
10	Goods sold to Amrutha Rs. 80,000
12	Cash Deposit into bank Rs. 50,00,000
14	Land sold for Cash Rs. 1,50,00,000
16	Rent paid to Mahesh Rs. 5,00,000

(OR)

10. Write the causes for disagreement of cash book balance with balance as per pass book.

11. Define Direct expenses and indirect expenses specify the list of Direct and Indirect Expenses.

(OR)

12. Draw the Blue Print of P & L account & B/S.

13. Explain the meaning importance of cash flow statement.

(OR)

14. What are the Advantages and disadvantages of ratio analysis?

(P.T.O)

15. Explain the Different types of Cost Centres.

(OR)

16. Prepare a cost sheet for a CMR furniture company for the financial year ending March 31, 2019. With the following information you have to prepare a cost sheet statement.

Direct material consumed – $12,000
Opening stock of raw materials – $130,000
Closing stock of raw materials – $8,000
Direct wages – $50,000
Factory overhead is 100% of direct wages
Office and administration overhead is 20% of works
Selling and distribution overhead – $25,000
Cost of opening stock for finished goods – $10,000
Cost of closing stock for finished goods – $15,000
Profit on cost is 20%

17. What is budget? Explain steps in preparation of Budget.

(OR)

18. Explain marginal cost? Explain advantages of marginal costing.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Honours (Comp)	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: Change Management	Duration	: 3 Hrs
Paper Code	: R23MCOM301	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 21-10-2024

SECTION-A

I. Answer ALL the following Questions **5X12=60M**

1. What is the meant by strategies for Change Management?

(OR)

2. Write the implications of Change to Organisations?

3. What are the different types of changes.

(OR)

4. Write about Organisational Performance Change.

5. What are the absorbing changes in the Organisations?

(OR)

6. How we Establishing a new directions for the Organisational Change?

7. How to managing work stress for enhancing employee productivity?

(OR)

8. Write the special features of new Technology Change.

9. What is the significance of Organisational Development?

(OR)

10. Write about concept of Sensitivity Training.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BBA Honours	Max Marks	: 60
Subject	: Commerce & Management	Pass Mark	: 24
Title of Paper	: **Business Statistics & Mathematics**	Duration	: 3 Hrs
Paper Code	: R23BBA304	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 19.10.2024

SECTION-A

I. Answer ALL of the following Questions **5X12=60M**

1. Describe the various methods of collecting Primary Data.

(OR)

2. Construct Bar-Diagram from the following data

Years	2017	2018	2019	2020	2021	2022	2023
No. of persons	3	16	22	35	24	15	2

3. Calculate the Mean for the following data

C.I	0 – 8	8 -16	16 – 24	24 – 32	32 – 40	40 – 48
Frequency	8	7	16	24	15	7

(OR)

4. Calculate the Standard Deviation for the following table giving the age distribution of 542 members.

Age in years	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70	70 – 80	80 – 90
No. of members	3	61	132	153	140	51	2

5. Calculate Karl Pearson's Correlation Co efficient between X and Y for the following data.

X	1	3	4	5	7	8	10
Y	2	6	8	10	14	16	20

(OR)

6. Obtain the two regression equations from the following data.

X	6	2	10	4	8
Y	9	11	5	8	7

7. Explain about different types of Sets.

(OR)

8. If $A = \{1,2,3,5\}, B = \{2,3,4,6\}$ and $C = \{1,2,4,5,7\}$, then prove that

(i) $(A \cup B) \cup C = A \cup (B \cup C)$

(ii) $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$

(iii) $(A \cap B) \cap C = A \cap (B \cap C)$

9. Define and explain the different types of matrices.

(OR)

10. If $A = \begin{bmatrix} 1 & 2 & -3 \\ 6 & 0 & 3 \\ 2 & -1 & 1 \end{bmatrix}$ and $B = \begin{bmatrix} 4 & -1 & 3 \\ 6 & 3 & 10 \\ 2 & 0 & 3 \end{bmatrix}$ then find AB and BA.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BBA Honours	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: **Business Environment**	Duration	: 3 Hrs
Paper Code	: R23BBA303	Time	: 2PM – 5PM
W.E.F	: 2024-25	Date	: 18/10/2024

SECTION-A

I. Answer ALL the following Questions **5X12=60M**

1. Define Business Environment and explain concept and Nature of Business Environment.

(OR)

2. Discuss the Salient features of Indian Economy and its evolution in the recent years.

3. Explain draft licensing frame work for AP's under FEMA.

(OR)

4. Explain the structure of NITI Ayog and Discuss about planning commission Vs NITI Ayog.

5. Discuss about the problems faced by MSME sector.

(OR)

6. Explain the Government policy initiative and current schemes available for MSME development.

7. What is meant by BOP? Explain various components and elements of BOP.

(OR)

8. Define Foreign exchange control and explain main reasons for foreign exchange control.

9. Explain the significance of International business environment.

(OR)

10. Discuss about the need for FDI in developing countries.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com (Gen, TP, Comp, Log)	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: Business Statistics	Duration	: 3 Hrs
Paper Code	: R20COM302A	Time	: 2pm-5pm
W.E.F	: 2022-23	Date	: 21-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Explain the meaning and definition of Statistics.

2. Explain the importance of Statistics.

3. What is Geometric mean in Statistics.

4. What is mode in Statistics.

5. What do you mean by Dispersion.

6. What is Skewness.

7. What is correlation? Explain its uses.

8. What is probable error.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Explain the characteristics of Statistics.

(OR)

10. Prepare a Histogram from the following data.

Marks	0 – 20	20 – 40	40 – 60	60 – 80	80 - 100
No. of students	20	50	90	38	15

11. Explain the qualities of a good average.

(OR)

12. Calculate mean from the following data.

X	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60
F	2	4	6	8	10	12

13. What are various measures of Dispersion.

(OR)

14. Calculate standard derivation and Co-efficient of variation.

X	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60	60 - 70
F	1	4	17	45	26	5	2

[P.T.O]

15. Explain various measures of Skewness.

(OR)

16. Calculate Karl pearson's Co-efficient of Skewness

Incomes	20	30	40	50	60	70
No. of People	8	12	20	10	6	4

17. Explain various types of correlations.

(OR)

18. From the following data Calculate Karlpearson's Co-efficient of correlation

X	65	66	67	67	68	69	71	73
Y	37	68	64	68	72	70	69	70

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class : II B.Com (Gen,Tp,Log,Comp)
Subject : Commerce
Title of Paper : Business Statistics
Paper Code : R20COM302
W.E.F : 2022-23

Max Marks : 75
Pass Mark : 30
Duration : 3Hrs
Time : 2pm-5pm
Date : 21-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X5=25M**

1. Explain the Characteristics of Statistics
2. Explain the Importance of Statistics
3. What is Median in Statistics
4. What is Geometric Mean in Statistics
5. What do you mean by Range
6. Explain different types of Skewness
7. What is Kurtosis
8. Explain various Types of Correlation.

SECTION-B

II. Answer ALL the following Questions **5X10=50M**

9. What are the Advantages and Limitations of Statistics ?

(OR)

10. Construct Simple bar diagram from the following data

Year	2012	2013	2014	2015	2016	2017
Exports	20	15	13	14	22	10

11. Explain the qualities of a good average.

(OR)

12. calculate mean for Wages.

Wages in Rs.	0-10	10-20	20- 30	30-40	40-50	50-60	60 - 70	70 -80
F	5	10	20	40	30	20	10	4

13. Write about Various Measures of dispersion.

(OR)

14. Calculate Standard Deviation and Co-efficient of Variation

Age in Years	20-30	30-40	40-50	50-60	60-70	70-80	80-90
F	3	61	132	153	140	51	2

[P.T.O]

15. Explain various measures of Skewness

(OR)

16. Calculate Karl pearson Co-efficient of Skewness

Wages	0-10	10-20	20- 30	30- 40	40-50	50- 60	60- 70	70- 80
F	5	9	8	12	10	4	3	2

17. Write about various measures of Correlation

(OR)

18. From the following data compute Karl pearson's Co-efficient of Correlation

X	48	35	17	23	47
Y	45	20	40	25	45

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com (TP)	Max Marks	: 75
Subject	: Commerce	Pass Mark	: 30
Title of Paper	: Indian Banking System	Duration	: 3 Hrs
Paper Code	: R20COMT303	Time	: 2pm - 5pm
W.E.F	: 2019-20	Date	: 22-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X5=25M**

1. Investment Banking.
2. CRR.
3. Offshore Banking.
4. Unit Banking.
5. KYC Norms.
6. NABARD.
7. Repo rate.
8. Anywhere Banking.

SECTION-B

II. Answer ALL the following Questions **5X10=50M**

9. Define Bank Explain Functions of Commercial Banks.

(OR)

10. Explain in detail the concept of Nationalization of Banks.

11. Explain the functions of RBI.

(OR)

12. Explain credit control measures of RBI.

13. What is mean by E-Banking explain innovations in Banking.

(OR)

14. Explain the importance of Venture capital.

15. Define Brach Banking and Explain merits and demerits of Branch Banking system.

(OR)

16. Explain the Functions of NABARD.

17. Define paying banker and explain responsibilities of paying banker.

(OR)

18. Explain different types of customers.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
III SEMESTER END EXAMINATIONS

Class	: II B.Com (General)	Max Marks	: 75
Subject	: Commerce	Pass Mark	: 30
Title of Paper	: Marketing	Duration	: 3 Hrs
Paper Code	: R20COMG303	Paper Time	: 2pm - 5pm
W.E.F	: 2021-22	Date	: 22-10-2024

SECTION – A

I. Answer any FIVE Of the following questions. **5X5=25M**

1. Marketing environment.
2. Market Segmentation.
3. Packaging.
4. Penetration Pricing.
5. Promotion Mix.
6. Concepts of Marketing.
7. Labelling.
8. Online Marketing.

SECTION –B

II. Answer ALL the following Questions **5X10=50M**

9. What do you meant by Marketing & Explain various marketing concepts?

(OR)

10. Explain about 4P'S of Marketing?
11. Explain various stages in Buying Decision Process?

(OR)

12. What are the types of Market Segmentation?
13. What is Product Life Cycle? Explain various steps in Product Life Cycle?

(OR)

14. What is Labelling? What are the advantages of Labelling?
15. Explain factors influencing Price determination?

(OR)

16. Explain about various price strategies?
17. What are the advantages of Online Marketing?

(OR)

18. Explain global marketing features?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com (TP)	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: Indian Banking System	Duration	: 3Hrs
Paper Code	: R20COMT303A	Time	: 2pm - 5pm
W.E.F	: 2022-2023	Date	: 23-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Credit creation

2. Investment banking

3. Reverse Repo Rate

4. Debit card

5. NEFT

6. Money Lenders

7. Indigenous bankers

8. KyC Norms

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. What are the trends in commercial banking in India?

(OR)

10. What are the advantages and disadvantages of unit banking

11. Explain about credit control measures

(OR)

12. Define RBI and explain its organizational structure

13. What is electronic banking and explain it's advantages and limitations

(OR)

14. Explain various services of mobile barking

15. Define SIDBI and explain it's functions

(OR)

16. Define NABARD. Explain it's role and functions

17. Explain various types of customers

(OR)

18. What are the duties and responsibilities of collecting bankers.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BBA	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: Financial Management	Duration	: 3 Hrs
Paper Code	: R20BBA303A	Time	: 2pm - 5pm
W.E.F	: 2022-23	Date	: 22-10-2024

SECTION-A

5X4=20M

I. Answer any FIVE of the following Questions

1. Nature of Financial Management.
2. NPV Vs IRR.
3. Sources of Working Capital.
4. Financial Leverage.
5. Significance of Dividend.
6. Cash Management.
7. Traditional Approach.
8. Determinants of Dividend Policy.

SECTION-B

5X8=40M

II. Answer ALL the following Questions

9. Explain the Goals of Financial Management?

(OR)

10. Explain the Functions of Financial Management?

11. Explain the types of Capital Budgeting?

(OR)

12. Examine the following project proposals evaluate them based on Net present value at 10% for both Projects:

Initial investment is Rs.10,00,000/- each of the proposals

Years	Project -A	Project-B	Present Values @10%
1	6,00,000	2,00,000	0.909
2	2,00,000	2,00,000	0.826
3	2,00,000	7,00,000	0.751
4	3,00,000	4,00,000	0.683

13. Describe the determinants of Working Capital?

(OR)

14. Management of XY Ltd. Seeks your assistance on assessing the working capital requirements for an activity level of 1,00,000 units of output for the year 2021.The cost details of the product are as follows:

[P.T.O]

Particulars	Cost Per Unit (₹.)
Raw materials	20
Direct Labour	5
Overheads	15
Total cost	40
profit	10
selling price	50

The other details are:

a) In order to ensure smooth flow of Production two months raw materials inventory is to be held in the stores.
b) Finished goods remain in stores for one month.
c) Credit allowed for purchase of raw material is one month.
d) Credit allowed to customers is two months
e) Cash balance to be maintained is ₹. 25,000.
f) Assuming that the product process is uninterrupted and even during the year. Lag in payment of overheads 1 month.

Compute the amount of Working Capital required for the given level of activity.

15. Explain the Types of Cost of Capital?

(OR)

16. The existing Capital structure od XYZ Ltd, is as follows:

Equity Shares of ₹.100 each	40,00,000
Retained earnings	10,00,000
9% preference shares	25,00,000

Company earns a return of 12% and tax on income is 35%
The company wants to raise ₹. 25,00,000 for its expansion project for which it is considering following alternatives.

i) Issue of 20,000 equity shares at a premium of ₹.25 per share.
ii) Issue 10% preference shares.
iii) Issue 9% debentures.

Projected that P/E Ratio in case of equity, Preference and Debenture financing 20, 17 and 16 respectively.

Which alternative would you consider to be the best? Give reasons for your choice.

17. Explain the Approaches of Dividend Policy?

(OR)

18. Given the following information about ABC Limited, show the effect of the dividend Policy on the market price of its shares, Using Walter's model:

Equity Capitalization Rate (Ke) = 12%
Earnings Per Share (E) = ₹. 8
Assumed returns on investment (r) are as follows: 1) R=15% 2) R= 10%
Show the effect of the different dividend policies on the share value of the firm, when dividend Pay-out Ratio is 25%

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.A Honours (PS)	Max Marks	: 60
Subject	: Politics	Pass Mark	: 24
Title of Paper	: **Indian Federal System**	Duration	: 3 Hrs
Paper Code	: R23PS304	Time	: 2pm – 5pm
W.E.F	: 2024-25	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Centre – State Administrative relations.

2. M.M. Punchi Commission recommendations.

3. Election reforms.

4. Anti – Defection law.

5. Ashok Mehata committee recommendations.

6. Functions of Rural Government.

7. Democratic Decentralization.

8. 73rd Constitutional Amendment Act.

SECTION-B

II. Answer any FIVE of the following Questions **5X8=40M**

9. Explain about Features of Indian Federal system.

10. Describe the financial relations between Central and State Governments.

11. Explain about Emerging Trends in Central State relations.

12. Write about the recommendations of Sarkaria Commission.

13. Write an essay on powers and functions of election commission of India.

14. Explain the Determinants of voting behaviour.

15. Explain about Balwanta Rai Mehata Committee recommendations.

16. Explain the powers and functions of Urban Governments.

17. Explain about 74th constitutions Amendment Act.

18. Explain about challenges of Rural Government.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.A Honours (PS)	Max Marks	: 60
Subject	: Politics	Pass Mark	: 24
Title of Paper	: **Political Institutions**	Duration	: 3 Hrs
Paper Code	: R23PS301	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 16-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Unicameralism.

2. Meaning of separation of powers.

3. Unitary form of Government.

4. Presidential form of Government.

5. Principles of Democracy.

6. Conditions for the success of Democracy.

7. Types of pressure Groups.

8. Functions of Political parties.

SECTION-B

II. Answer any FIVE of the following Questions **5X8=40M**

9. Explain powers and functions of Legislature.

10. Describe powers and functions of Executive.

11. Explain about Montesquieu's doctrine of separation of powers.

12. Explain about Advantages and disadvantages of separation of powers.

13. Explain the merits and demerits of Federal Government.

14. Explain merits and demerits of parliamentary form of Government.

15. Define Democracy and explain its significance.

16. Explain various types of Democracy.

17. Define Political parties and explain classification of political parties.

18. Define public opinion and explain its significance.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.A Honours (PS)	Max Marks	: 60
Subject	: Politics	Pass Mark	: 24
Title of Paper	: **Indian Constitution**	Duration	: 3 Hrs
Paper Code	: R23PS302	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 17-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Origin of constitution.

2. Montague – Chelmsford Reforms, 1919.

3. Nature of constituent Assembly.

4. Preamble.

5. Directive principles of state policy.

6. Fundamental Duties.

7. Kesavananda Bharath Case, 1973.

8. Minerva Mills case, 1980.

SECTION-B

II. Answer any FIVE of the following Questions **5X8=40M**

9. Define constitution and explain Evolution of constitution.

10. Explain about classification of the constitution.

11. Explain about constitutional development in India during the British Rule.

12. Explain the Government of India Act. 1935.

13. Describe Socio – Economic and philosophical dimensions of constituent Assembly.

14. Write about the salient features of Indian constitution.

15. Write an essay on fundamental rights.

16. Explain differences between fundamental rights and Directive Principles of state policy.

17. Explain the basic structure of the constitution and its origin and growth.

18. Explain the Judicial interpretation. Golaknadh case, 1967.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BA Honours (PS)	Max Marks	: 60
Subject	: Political Science	Pass Mark	: 24
Title of Paper	: Western Political Thought:Ancient And Medival	Duration	: 3 Hrs
Paper Code	: R23PS303	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 18/10/2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Plato's Justice

2. Aristotle's Views on slavery.

3. Citizenship

4. Cicero Justice

5. St.Augustine on war and peace.

6. St.Thomas Aquinas Political Philosophy

7. William Ockham Legacy.

8. Machiavelli's Human Nature.

SECTION-B

II. Answer any FIVE of the following Questions **5X8=40M**

9. Explain about Plato's rule of Philosopher King.

10. Write about the Plato's scheme of Education.

11. Explain the theory of Revaluations.

12. Explain the features of Aristotle's best state.

13. Explain the concept of earthly city and heavenly city profounded by St. Augustine.

14. Explain the Cicero's influence on western political thought.

15. Write about Thomas Aquinas four cardinal principles.

16. Write about William Ockham's Political Philosophy.

17. What are the qualities of a Prince suggested by Machiavelli.

18. Discuss about the state and state craft.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BA Honours (PS)	Max Marks	: 60
Subject	: Political Science	Pass Mark	: 24
Title of Paper	: Perspectives on Indian Society	Duration	: 3 Hrs
Paper Code	: R23MSOC301	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 21-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Cognitive historical approach

2. Ashrama dharma

3. Types of marriage

4. Forms of Hindu marriage

5. Changing trends in Indian family

6. Features of cast system

7. Socio religious movements

8. Composition of Indian Society

SECTION-B

II. Answer any FIVE of the following Questions **5X8=40M**

9. Explain the theoretical perspective of sociology

10. Explain the about the purusharthas and varnadharma

11. Describe the Hindu view of life.

12. What are the changing trends in marriage.

13. Explain the structure and functions of joint family

14. Discuss about the types of family.

15. Explain the features and function of caste system

16. Explain the origin of the caste system.

17. Discuss about the socio religious movements.

18. Explain about the unity and diversity.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
III SEMESTER END EXAMINATIONS

Class	: II Degree (ALL Groups)	Max Marks	: 50
Subject	: Foundation	Pass Mark	: 20
Title of Paper	: Environmental Education	Duration	: 2 Hrs
Paper Code	: R20LSC304	Paper Time	: 2 pm - 4 pm
W.E.F	: 2021-22	Date	: 14.10.2024

SECTION – A

I. Answer any FOUR Of the following questions. **4X5=20M**

1. Levels of Bio diversity.
2. Forest Resources.
3. Ozone layer depletion.
4. Non Renewable Energy sources.
5. Land Degradation.
6. Kyoto protocol.
7. Chipco movement.
8. Afforestation.

SECTION –B

II. Answer any THREE of the following Questions **10X3=30M**

9. Explain about scope, importance and multi disciplinary nature of Environmental education.

10. Define Bio-diversity and explain various threats of Bio diversity.

11. Explain briefly about various types of pollutions.

12. Write an essay on solid waste management.

13. Explain about various laws for environmental protection.

14. What is Deforestation? Explain its causes and effects.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (BT)	Max Marks	: 60
Subject	: BioTechnology	Pass Mark	: 24
Title of Paper	: Molecular Biology	Duration	: 3 Hrs
Paper Code	: R23BT302	Time	: 2pm – 5pm
W.E.F	: 2024-25	Date	: 18/10/2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

Draw labelled diagrams wherever necessary

1. Gene

2. Origin of replication

3. Reverse transcription

4. Lac operon

5. Wobble hypothesis

6. Promoter

7. Polyand mono cistronic mRNA

8. Structure of t-RNA

SECTION-B

II. Answer any FIVE of the following Questions **5X8=40M**

Draw labelled diagrams wherever necessary

9. Explain Prokaryotic genome organization in E.coli?

(OR)

10. Write about experiments to prove DNA as genetic material?

11. Define DNA replication? Write about enzymes and proteins involved in DNA replication?

(OR)

12. Explain Semi conservative replication with proof?

13. Explain Transcription in prokaryotes with neat labeled diagram?

(OR)

14. Write about basic features of transcription?

15. Write an essay on Lac operon mechanism in prokaryotic gene regulation?

(OR)

16. Write an essay on regulation of gene expression in eukaryotes.

17. What is genetic code and write down its characteristics in detail?

(OR)

18. Write an essay on translation in prokaryotes with neat labeled diagram?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hon(Biotechnology)	Max Marks	: 60
Subject	: Biotechnology	Pass Mark	: 24
Title of Paper	: **Genetic Engineering**	Duration	: 3Hrs
Paper Code	: R23BT303	Time	: 2pm – 5pm
W.E.F	: 2024-25	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Write about linkers and adapters

2. Explain the features of BAC

3. Discuss various applications of PCR

4. Write about codon optimization

5. Explain site-directed mutagenesis

6. Discuss about pyrosequencing

7. Explain silent features of phage vectors

8. Write about of human genome project

SECTION-B

II. Answer ALL the Following Questions **5X8=40M**

9. Discuss briefly about the molecular tools used in genetic engineering

(OR)

10. Give an account on the basis history scope and recent developments in genetic Engineering

11. Write about the properties and structure of plasmid vectors Puc19 & pBR322

(OR)

12. Give an account of screening and selection of recombinants

13. Write about the principle, methods, and types of PCR

(OR)

14. Write an essay on the labeling of DNA

15. Explain the strategies of gene delivery

(OR)

16. Give an account of the construction of cDNA libraries.

17. Give an account of chromosome engineering.

(OR)

18. Write an account on DNA sequencing methods

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (BT)	Max Marks	: 60
Subject	: BioTechnology	Pass Mark	: 24
Title of Paper	: Metabolism	Duration	: 3 Hrs
Paper Code	: R23BT304	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 21-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**
Draw labelled diagrams wherever necessary

1. Write a brief note on Light and Dark reactions.

2. Explain Gluconeogenesis.

3. Describe Biosynthesis of Cholesterol.

4. Write about Deamination.

5. Give an account on Transamination.

6. Write a note on Enzyme specificity.

7. Write about the applications of immobilized enzymes.

8. Explain Michaelis-Menten equation.

SECTION-B

II. Answer any FIVE of the following Questions **5X8=40M**
Draw labelled diagrams wherever necessary

9. Give detailed account on Glycolysis?

(OR)

10. Give detailed account on C4 pathway?

11. Write about Denovo synthesis of Fatty acids?

(OR)

12. Write about Biosynthesis and degradation of TAG?

13. Write an essay on Inborn errors of aromatic and branched chain amino acid metabolism?

(OR)

14. What is creatine? Write down the biosynthesis of creatine?

15. Write about classification and nomenclature of Enzymes?

(OR)

16. Write the difference between Chemical and Biological Catalysts?

17. Write down the various methods of enzyme immobilization?

(OR)

18. Write an essay on enzyme inhibition kinetics?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (BT)	Max Marks	: 60
Subject	: BioTechnology	Pass Mark	: 24
Title of Paper	: Plant And Animal BioTechnology	Duration	: 3 Hrs
Paper Code	: R23BT301	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 17-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**
Draw labelled diagrams wherever necessary

1. Write a brief note on M.S media.

2. Explain the importance of secondary metabolites.

3. Write about BT cotton.

4. Describe the applications of DNA finger printing.

5. Give an account on cryopreservation.

6. Explain the production of Insulin.

7. Write about the merits and demerits of transgenic animals.

8. Explain primary containment for biohazards.

SECTION-B

II. Answer any FIVE of the following Questions **5X8=40M**
Draw labelled diagrams wherever necessary

9. Write an essay on callus culture?

(OR)

10. Write about the technique of propagation and its applications?

11. Give an account on Agro bacterium –mediated gene transfer?

(OR)

12. Write about principles and applications of RFLP, RAPD?

13. Give a detailed account on primary culture and secondary culture?

(OR)

14. Write an essay on cell lines?

15. Write an essay on IVF?

(OR)

16. Write an essay on Gene therapy?

17. What is IPR? Explain types of IPR?

(OR)

18. Write about bioethics in cloning and stem cell research?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc (CBZ)	Max Marks	: 60
Subject	: Botany	Pass Mark	: 24
Title of Paper	: Anatomy And Embryology of Angiosperms , Plant Ecology And Biodiversity	Duration	: 3 Hrs
Paper Code	: R20BOT301A	Time	: 2pm – 5pm
W.E.F	: 2023-24	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Tunica – Corpus theory.

2. Double fertilization.

3. Ecological Pyramids.

4. Natality

5. Hot spots

6. Food chain

7. Teak

8. Value of Biodiversity

SECTION-B

II. Answer any FIVE of the following Questions **5X8=40M**

9. Describe the arrangement of maristematic tissue in the shoot tip.

(OR)

10. Describe the anomalous secondary growth in Boerhaavia stem.

11. Give an account on Endosperm types in angiospermic plants.

(OR)

12. Describe the process of Dicot embryo development related to Capsella – bursa – pastoris.

13. Give an account on the basic components of an ecosystem.

(OR)

14. Give an account on Hydrosera.

15. Describe the components of a grass land ecosystem.

(OR)

16. Give an account on population growth and growth curves.

17. Define Biodiversity and explain the different levels of Biodiversity.

(OR)

18. Describe the roles of NBPGR and NBA.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hon(Microbiology)	Max Marks	: 60
Subject	: Microbiology	Pass Mark	: 24
Title of Paper	: **Biomolecules and Enzymology**	Duration	: 3Hrs
Paper Code	: R23MB302	Time	: 2pm to 5pm
W.E.F	: 2024-25	Date	: 18/10/2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Epimers

2. Glucosamine

3. Importance of lipids in biological system

4. Structure and applications of waxes

5. Gramicidin

6. Structure of DNA

7. Allosteric inhibition

8. Lock and key hypothesis?

SECTION-B

II. Answer ALL the Following Questions **5X8=40M**

9. Explain polysaccharides and write about the storage polysaccharides

(OR)

10. Explain in detail about the stereoisomerism of monosaccharides

11. Explain the structure functions and metabolism of triglycerides and phospholipids?

(OR)

12. Write about the structure and properties of lipids

13. Write about the general characteristics of Proteins and Amino acids?

(OR)

14. Give an account of different types of protein structures?

15. Write about the types of vitamins and their role in metabolism?

(OR)

16. Describe the structure and functions of DNA?

17. Write about the inhibition of enzyme activity?

(OR)

18. Describe the mechanism of enzyme action?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Microbiology)	Max Marks	: 60
Subject	: Microbiology	Pass Mark	: 24
Title of Paper	: **Microbial And Analytical Techniques**	Duration	: 3 Hrs
Paper Code	: R23MB303	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 19.10.2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**
Draw labelled diagrams wherever necessary.

1. Application of Electron Microscope.

2. Acid Fast Staining

3. Bacteriostatic and Bactericidal agents.

4. Laminar Air Flow chamber

5. Viable non- culturable bacteria(VNBC)

6. Column packing and fraction collection.

7. Laws of Light absorption.

8. Applications of Centrifugation.

SECTION-B

II. Answer any FIVE of the following Questions **5X8=40M**
Draw labelled diagrams wherever necessary.

9. Write about the types and principle of Electron Microscope.

(OR)

10. Explain about Staining Techniques.

11. Write briefly about the chemical methods of microbial control.

(OR)

12. Give an account on Dry heat and Moist heat Sterilization.

13. Explain about the Pure culture techniques.

(OR)

14. Write an essay on Cultivation of anaerobic bacteria.

15. Write about the types of Column Chromatography.

(OR)

16. Write about principle, instrumentation and applications of UV visible Spectrophotometer.

17. Give an account on principle and types of Centrifugation,

(OR)

18. Explain briefly about the types of Electrophoresis.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (MB)	Max Marks	: 60
Subject	: MicroBiology	Pass Mark	: 24
Title of Paper	: Cell Biology And Genetics	Duration	: 3 Hrs
Paper Code	: R23MB304	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 21-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**
Draw labelled diagrams wherever necessary

1. Lysosomes

2. Nucleolus

3. Protein sorting

4. Chromosome theory of inheritance

5. Genetic drift

6. Golgicomplex

7. Pedigree Analysis

8. Hard- Weinberg Law

SECTION-B

II. Answer any FIVE of the following Questions **5X8=40M**
Draw labelled diagrams wherever necessary

9. Describe the structure, types and functions of endoplasmic reticulum?

(OR)

10. Write an essay on Cell Cycle?

11. Write the structure, models of plasma membrane and functions?

(OR)

12. Write the causes and steps in development of cancer?

13. Write an essay on stem cells and its applications?

(OR)

14. Give an account on programmed cell death?

15. Explain Mendel's laws with suitable examples?

(OR)

16. Write an essay on Multiple alleles with reference to blood groups?

17. What is crossing over? Describe crossing over in detail?

(OR)

18. Write an essay on sex linked inheritance in Drosophila and Man?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (MB)	Max Marks	: 60
Subject	: MicroBiology	Pass Mark	: 24
Title of Paper	: Eukaryotic Micro Organisms	Duration	: 3 Hrs
Paper Code	: R23MB301	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 17-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**
Draw labelled diagrams wherever necessary

1. Deuteromycetes

2. Fungal Dimorphism

3. Biological control of Mycotoxins

4. Industrial applications of Fungi

5. Pigments in Algae

6. Importance of algae in food

7. Culture media for algal cultivation

8. Giardia

SECTION-B

II. Answer any FIVE of the following Questions **5X8=40M**
Draw labelled diagrams wherever necessary

9. Write about the Ultrastructure of Fungal cell?

(OR)

10. Write an essay on Heterothallism in Fungi?

11. Write in detail about any two fungi as plant and Animal Pathogens?

(OR)

12. Give an Account on Mushroom and its cultivation?

13. Explain about the occurrence, Thallus organization and ultrastrucutre of Algae?

(OR)

14. Give an account on Reproduction in Algae?

15. Give an account on growth parameters of Algal Cultivation?

(OR)

16. Explain the importance of Algae in Agriculture and Industry?

17. Write about the pathogenic protozoa-Plasmodium and Leishmania?

(OR)

18. Describe the importance of Protozoa in Waste management and Soil Fertility?

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
III – SEMESTER END EXAMINATIONS

Class	: II B.Sc (CBZ)	Max Marks	: 60
Subject	: Zoology	Pass Mark	: 24
Title of Paper	: Biology, Genetics , Molecular Biology & Evolution	Duration	: 3 Hrs
Paper Code	: R20ZOO301A	Time	: 2pm - 5pm
W.E.F	: 2022-23	Date	: 21-10-2024

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**

1. Mitochondria
2. Mendel's work on transmission of traits
3. Write about central dogma of molecular biology
4. What is Lac-Operon? How does it function in prokaryotic gene regulation?
5. Write about any 3 of chromosomal disorders
6. Hardy Weinberg law
7. Multiple alleles
8. Germ plasm theory

SECTION-B

II. Answer ALL the following Questions **5X8=40M**

9. Write an essay on mycoplasma and Endoplasmic reticulum?

(OR)

10. Give an account of the structure of plasma membrane and its functions?

11. What is sex determination and explain about chromosomal sex determination?

(OR)

12. Write an essay on gene interactions and explain it with suitable examples suitable examples?

13. What is transcription? Write in detail about transcription in Prokaryotes and mention all the enzymes involved.

(OR)

14. What is Translation? Emphasize on initiation elongation, and termination of translation process?

15. What are chromosomal disorders? Explain in detail about Autosomal and Allosomal disorders with examples.

(OR)

16. Explain in detail about Genomics and proteomics.

17. Write an essay on origion of life?

(OR)

18. What is speciation and write a brief note on allopatric and sympatric speciation?