

Time: 3 Hours

Max Marks: 70

Section-A

I. Answer any five of the following questions.

(5x4=20 Marks)

1. Rewrite the following sentences in Direct speech.
 - i) He asked me whether I played cards.
 - ii) Tania requested her friend to lend her an umbrella.
 - iii) He told us that we could borrow the pen
 - iv) Gopu said that the bell was ringing.
2. Add stress marks appropriately for the following words.
 - i) volunteer ii) gazette iii) examination iv) historical
 - v) education vi) committee vii) balloon viii) shampoo
3. Write down the contracted forms of the following words.
 - i) cannot ii) do not iii) we are iv) she will
 - v) I have vi) are not vii) need not viii) will not
4. Fill in the blanks with the proper degree of the adjectives in the given brackets.
 - i) Suresh is my friend. (old)
 - ii) Geeta is the friend I have. (good)
 - iii) Varun is than Tarun. (Tall)
 - iv) My horse runs than yours. (Fast)
5. Write about your favorite hobby?
6. Write types of sentences with examples each?
7. Expand the proverb "God Helps Those Who Help Themselves".
8. Choose the correct spelling from the below words.
 - a) Waited waited warited waitened
 - b) studied studied stueied studying
 - c) counting counting couting cornting
 - d) smiled smiled smelid smeelid

Section-B

II. Answer all the questions.

(10x5=50 Marks)

9. a) i) What is the narrative plot of the play refund. (5M)
- ii) Read the passage and answer the following questions. (5M)

The word "Telangana" is derived from the word Trilinga Desam refers to the regions of Draksharamam, Srisailam and Sri Kaleshwaram. "Trilinga" later evolved into "Teliga" of "Telunga" and further into "Telangana", "Telugu" is an

apt term to represent the people of this region. The language of Telangana is influenced by Marathi speaking people of the Marathwada region (Aurangabad Division of present day Maharashtra. The language reflects the everyday lives of the people of the region and their diverse cultural and linguistic Influences. The language is simple, convenient and straight forward. The people's agitation for a separate Telangana state moulded this language as a vehicle for promoting the uniqueness and identity of the region .

1. Trace the Etymological roots of the word "Telangana ".
2. What does Trilinga Desam stand for?
3. Name the language that has influenced the language of Telangana.
4. How did language figure in the agitation for a separate Telangana state?
5. What is meant by Apt?

(OR)

9. b) i) Annotate the following: (5M)

The teachers agree to re-examine Wasserkopf and justify his wrong answers.

- ii) Rewrite the following sentences in indirect speech. (5M)

1. The teacher said, " I am reading a novel now."
2. "Do come in, John," Gautam said.
3. "May you be happy," I said to him.
4. We said, "Long live the king!"
5. He said to us, 'you can borrow my pen.'

10. a) i) What is Newton's contribution to the world of science? (5M)

- ii) Read the passage and answer the following questions (5M)

The word 'dialogue' means a conversation or a discussion between two persons. With regard to fiction specifically, dialogue refers to the lines spoken by characters in drama or in a story. Dialogue is a very important component of all fictional writing, be it novels, plays or short stories. It is one of the most important elements in scriptwriting and other forms of writing for film, television and radio.

While writing dialogues, it is important to pay attention to using punctuation marks appropriately and effectively. Punctuation helps in providing on, in general, helps in providing clarity ;and in dialogues ,proper punctuation helps readers understand the meanings and comprehend the emotions that characters intend to convey.

1. What is Dialogue?
2. Which is an important element in script writing?
3. Write synonym for fiction?

4. Define punctuation with example.
 5. How does dialogue work in a story?

(OR)

10. b) i) Annotate the following (5M)
 "Oh Diamond, Diamond, "exclaimed he, "thou little knowest the mischief thou hast done."
 ii) Fill in the blanks with suitable answer choosing from the brackets. (5M)
 1. He gave me a piece of.....(advice/advise)
 2. Do not.....(throw/through) stones at the tree.
 3. Let usthe auditorium (proceed /precede)
 4. Do not apply the.....(Brake/break) unnecessarily.
 5. He was busy over the cost. (Pouring /poring)

11. a) i) Discuss the mother as a tragic hero. (5M)
 ii) Read the passage and answer the following questions (5M)

Sagar Bhogaraju came to the limelight when he was selected as a fellow at the Max Planck Institute of Biochemistry, Munich, Germany. He aspired to be a researcher at a premier Institute, when he was a student at IIT Kanpur. Getting through a series of tests and rigorous interviews was an arduous task. But for Sagar it was a cake walk. Sagar is a typical Telanganite, a brilliant but unassuming personality. Sagar completed his doctoral studies from the Max Planck Institute and is presently pursuing a post -doctoral degree. He was twice selected for the Young Scientist Award, for his work on Cilium. He discovered 'IFT-81'a protein present in Cilium .The publication of his findings attracted much attention among scientists across the world.

1. Where is the Max Planck Institute of Biochemistry located?
2. Write Antonym for rigorous?
3. Name the protein discovered by Sagar Bhogaraju?
4. What part of speech is the word Getting?
5. Write Synonym for brilliant?

(OR)

11. b) i) Annotate the following: (5M)
 "My son. My husband was killed thirteen days ago; this one today."
 ii) Write essay on Climate change and its impact. (5M)
12. a) i) What is Emotional intelligence? Why it is important? (5M)
 ii) What is personal diary, Explain with example. (5M)

(OR)

12. b) i) Write a brief article of around 500 words about the life and works of Dr.A.P.J Abdul Kalam? (5M)
- ii) Expand the proverb "Actions speaks louder than words." (5M)
13. a) i) Why is team work so important at work place? (5M)
- ii) What are Eponyms? Write short note on mentor. (5M)

(OR)

13. b) i) Define Alliteration and Internal rhyme? (5M)
- ii) Write Synonyms for the following words (5M)
- 1) Global 2) Fortune 3) Solace 4) Whirl 5) Enchanted

Time: 3 Hours

Max Marks: 70

భాగం -- అ

ఈ క్రింది ప్రశ్నలలో ఏవేని నాలుగు గంటలకే సమాధానాలు రాయండి.

4*5=20

1. బగబగ యనిపించే నతడు నా హృదయంబున -సందర్భ సహిత వాక్యం రాయండి.
2. మన్ను కానె కాను నేను ,మనసు వున్న మానవుడను. సందర్భ సహిత వాక్యం రాయండి.
3. ఈ కేంది పద్యంలోని వస్తువు విశ్లేషణ చేయండి.

శిశువు తనకున్ బుట్టి చేటలో బడునాడెన్

పొరజనులు హితులు బంధుజనులు

గాంచ మత్సరునకున్ గన్య నిచ్చెదనను

బలుకు బొంకజేసిన్ బాపమనక

4. దేవరకొండ బాలగంగాధర్ తిలక్ కవి పరిచయము రాయండి.
5. రంగాచార్య తెలంగాణలో ఆనాటి స్వాతంత్ర్య దినోత్సవాన్ని నిర్వహించిన తీరు తెలపండి.
6. గురవడు-- పోచాలు దంపతుల అన్యోన్యతను సంక్షిప్తంగా తెలియజేయండి.

భాగం - ఆ (వ్యాస రూప సమాధానాలు) 5*10=50

7. ఈ క్రింది పద్యానికి కవి పరిచయం, ప్రతిపదార్థ తాత్పర్యము, వ్యాకరణాంశాలు రాయండి.

ఎ) కనుగవకెంపు బార మది కళ్ళళ మంతకు బొంపు దేర హె

చ్చిన తమి మీర జెక్కువగ చెమటజార ప్రలంబవైరి పై తన కసిధీర పట్టువిడి తాలిమిదూర సరోషభీషణా
నన మలరార నాకమలనాభునిచెంతకు జేరి యిట్లనెన్

లేదా

- బి) మొదల సహోదరీమని ప్రమోదమునంద ననుంగున్ గూతున్ న

మృదవతి సున్నునైనా యభిమాన్యున కిచ్చేదనంచు సున్నత

భృదయమతి న్వచించియు సుయోధనుసూతి కొసంగి తుచ్చసం

పదలకు మోహమందుటిది పాపముగాదె ప్రదంబభేదనా!

8. ఎ) నారదుడు సంగీత కౌశలాద్యుడైన విధమును గురించి రాయండి.

లేదా

- బి) నారసింహ శతకము ప్రబోధాత్మక రచన -నరసింహ శతకము ఏ విధముగా ప్రబోధిస్తుందో తెలపండి

9. ఎ) ఆర్తగీతంలో బాలగంగాధర్ తిలక్ వెలిబుచ్చిన ఆర్తిని తెలపండి.

లేదా

- బి) దేవరకొండ దుర్గం వైభవం యొక్క ప్రస్తుత స్థితిగతులను తెలపండి.

10. ఎ) ట్రాన్ జీవిత చరిత్రను సంక్షిప్తంగా తెలపండి.

లేదా

- బి) నివురు తొలగిన నిప్పు అనే కథలో 'రమణ పాత్ర' గుణగణాలలో వివరించండి.

11. ఎ) భారత దేశ ప్రథమ స్వాతంత్ర్య దినోత్సవము, రంగాచార్య నిజాం రాజ్యంలో జరిపిన తీరును తెలపండి.

లేదా

- బి) 'శివనాథము- శకుంతల' దంపతుల మనస్తత్వములోని తారతమ్యాలను విశదీకరించండి.

Faculty of Science/Commerce/Business Management
B.Com/BBA/B.Sc II-Year, CBCS-IV Semester Backlog Examinations
Nov/Dec-2024
PAPER: HINDI-IV

Time: 3 Hours

Max Marks: 70

खण्ड 'अ'

निम्नलिखित छह प्रश्नों में से किन्हीं चार (4) प्रश्नों का उत्तर दीजिए। (4x5=20)

1. बिहारी का कवि परिचय लिखिए।
2. आज सभ्यता के वैज्ञानिक-----
 ----- नष्ट होने की ओर अग्रसर कविता की संदर्भ सहित व्याख्या कीजिए।
3. रहिमन विपदा हू भली-----
 ----- जानि परत सब कोय दोहा की संदर्भ सहित व्याख्या कीजिए।
4. 'कलम और तलवार' कविता का सारांश लिखिए।
5. रामधारी सिंह दिनकर का कवि परिचय लिखिए।
6. 'वे मुस्काते फूल नहीं' कविता की समीक्षा कीजिए।

खण्ड 'आ'

(5x10=50)

7. निम्न में से किसी एक प्रश्न का उत्तर दीजिए। (1x10=10)

(क) रीतिकाल की विशेषता पर प्रकाश डालिए।

(ख) आधुनिक काल की सामाजिक तथा धार्मिक परिस्थिति पर प्रकाश डालिए।

8. निम्न में से किसी एक कविता का सारांश लिखिए। (1x10=10)

(क) 'तू क्यों बैठ गया है पथ पर' कविता का सारांश लिखिए ?

(ख) 'कलम और तलवार' कविता का समीक्षा कीजिए ?

(ग) 'भगवान बुद्ध के प्रति' कविता में कवि किस युग पुरुष का वर्णन किया गया है?

9. निम्न में से किसी एक युग के बारे में लिखिए। (1x10=10)

(क) द्विवेदी युग के बारे में लिखिए।

(ख) प्रयोगवाद की प्रवृत्तियाँ पर प्रकाश डालिए ?

(ग) प्रकृति का चित्रण किस वाद में मिलता है समझाइये।

10. निम्न में से किसी एक कवि का परिचय लिखिए। (1x10=10)

(क) महादेवी वर्मा (ख) रहीम (ग) दिनकर

11. निम्न में से किसी एक निबंध पर प्रकाश डालिए ? (1x10=10)

(क) पर्यावरण और हम

(ख) स्वच्छता का महत्व

(ग) स्त्री शिक्षा का महत्व

Section-A

I- Answer any 4 Questions. Each Question carry Five marks. (4x5=20 Marks)

Q.1. Translate the following:

(1) ترجم هذه العبارة الآتية:

"كان رسول الله صلى الله عليه وسلم أفضل القوم مروءةً، وأحسنهم خلقاً، وأشدّهم حياءً، وأكملهم عفةً ونزاهةً، وأصدقهم حديثاً، وواصلهم بالرحم، حاملاً لثقل الناس، مُكرماً للضيوف، عوناً على البرّ والتقوى، فكان يأكل من كسب يده، فاشتهر في القوم بـ "الأمين" و"الصادق"

Q.2. Answer the following question:

(2) من أفضل نساء الجنة ؟

Q.3. How many الأفعال الناقصة are there ? what are they?

(3) كم عددا من الأفعال الناقصة؟ وما هي؟

Q.4. Write any Five meanings from the following words :

(4) اكتب خمسة معان من الكلمات الآتية:

الزاد - صعد - انصرف - عرض -

شقت - نطق - عفيفات - يداوين -

Q.5. Convert any Five of the following words from singular into plural:

(5) هات خمسة جموع من الكلمات التالية:

حكم - زوج - عبادة - مسلمة - شعب - متصدقة - قانتة - امرأة -

Q.6. Write about the poetry during Abbassid Period:

(6) اكتب عن الشعر في العصر العباسي:

Section-B

II- Answer all questions Each question carry (10) (5x10=50 Marks)

Q.7. (A) Describe " أشهر صحابييات الرسول ":

(7) بين أشهر صحابييات الرسول صلى الله عليه وسلم بالتفصيل

(OR)

(B) Explain the summary of the lesson " سيرة الرسول ":

اكتب خلاصة "سيرة الرسول "

Q.8. (A) Explain in detail about "إن وأخواتها" with examples:

(8) اكتب عن "إن وأخواتها" بالتفصيل مع الأمثلة.

(OR)

(B) Write about "كان وأخواتها" in detail with examples:

اكتب عن "كان وأخواتها" بالتفصيل مع الأمثلة.

Q.9. (A) Describe about the poet "أبو العتاهية":

(9) اكتب عن الشاعر "أبي العتاهية":

(OR)

(B) What do you know about the "Poets during Abbasid Period":

ماذا تعرف عن الشعراء في العصر العباسي.

Q.10. (A): Explain the life history of the poet "أبو العلاء المعري":

(10) اكتب عن حياة الشاعر "أبي العلاء المعري":

(OR)

(B) Describe about the poet "المتنبي":

اكتب عن الشاعر المتنبي:

Q.11. (A): Translate and explain with reference to the context:

(11) ترجم وشرح واذكر مرجع هذه العبارة:

"ثم قام رسول الله صلى الله عليه وسلم بدعوة الإسلام جهراً، فصعد الصفا، ودعا الناس إلى دين الإسلام، وأظهر الحق كما أمر الله عز وجل، فجعل الكفار يؤذون الرسول صلى الله عليه وسلم وأصحابه"

(OR)

(B) Write 5 examples of "كان وأخواتها"

اكتب عن خمسة امثلة لـ "كان وأخواتها"

Faculty of Commerce, Sciences and Business Management
B.Com/B.Sc/BBA II-Year, CBCS-IV Semester Examinations Nov/Dec- 2024

Paper: SECOND LANGUAGE SANSKRIT

Time: 3 Hours

Max Marks: 70

Section-A

I- Answer any 4 Questions.

(4x5=20 Marks)

चतुर्थांश प्रश्नाः समाह्वयः
PART-A ("अ" विभागः)
4x5=20m

1. लौकिकानां हि साधूनामर्थं वागनुवर्तते ।
ऋषीणां पुनराद्यानां वाचमर्थोऽनुवृत्तवति ॥
2. अहं तथा धर्तिष्ये- यथा निश्चितस्य जगतः
पूजनीयम् उत्तमात्मन रूपानं प्राप्नुयामि ।
3. कृदन्तरूपानि प्रत्यभिजानीत
1. तिष्ठन् 2. वर्धमानः
4. सर्वथा अपूर्ववशां अपि सत्पुत्रवशादप्यं दृश्यते ।
5. दण्डिमहाकवेः परिचयं लिखत ।
6. कृदन्तरूपानि प्रत्यभिजानीत
1. भुक्तवा 2. गतवा

Section-B

II. Answer All the Questions.

(5x10=50 Marks)

SECTION-B

PART-10

अथ प्रश्नाः समाधाय ॥ अथ समाधानाः ॥

३) प्रश्नः कर्तव्यः प्रातःपद्यं तापस्यं च निश्चयः ।
 अथ उत्तरं इयं च प्रश्नोऽयं अथ अथ अथ अथ ।
 आनन्दस्य त्वत्स्य दुःखस्य भासि मे व्यथा ॥
 (अथवा)

४) अथ अथ अथ अथ अथ अथ अथ अथ अथ अथ ।
 अथ अथ अथ अथ अथ अथ अथ अथ अथ अथ ।
 अथ अथ अथ अथ अथ अथ अथ अथ अथ अथ ।
 (अथवा)

५) अथ अथ अथ अथ अथ अथ अथ अथ अथ अथ ।
 अथ अथ अथ अथ अथ अथ अथ अथ अथ अथ ।
 अथ अथ अथ अथ अथ अथ अथ अथ अथ अथ ।
 (अथवा)

६) अथ अथ अथ अथ अथ अथ अथ अथ अथ अथ ।
 अथ अथ अथ अथ अथ अथ अथ अथ अथ अथ ।
 अथ अथ अथ अथ अथ अथ अथ अथ अथ अथ ।
 (अथवा)

७) अथ अथ अथ अथ अथ अथ अथ अथ अथ अथ ।
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९) अथ अथ अथ अथ अथ अथ अथ अथ अथ अथ ।
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१०) अथ अथ अथ अथ अथ अथ अथ अथ अथ अथ ।
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Faculty of Science

B.Sc (Computer Science) II-Year, CBCS-IV Semester Backlog Examinations

Nov/Dec-2024

SEC PAPER: PYTHON-2

Time: 2 Hours

Max Marks:40

Section-A

I. Answer any two of the following questions (2x5=10Marks)

1. Define List and Tuple with Example.
2. Explain about Basic String Operations
3. Explain about Procedural Vs Object Oriented Programming
4. Define Inheritance and Polymorphism

Section-B

II. Answer the following questions (2x15=30Marks)

5. (a) What is List? Explain about operations performed on List with Example.

(OR)

- (b) Define Recursion. Explain about problem solving with Recursion and Recursive Algorithms.

6. (a) Define Class and Explain about techniques used for designing classes with example.

(OR)

- (b) What is Widget? Explain about different widgets used in Python with Examples.

Faculty of Commerce, Sciences and Business Management
B.Com/B.Sc/BBA II-Year, CBCS-IV Semester Backlog Examinations
Nov/Dec- 2024

SEC PAPER: UNIVERSAL HUMAN VALUES

Time:2 Hours

Max Marks:40

Section-A

I. Answer any two of the following questions

(2x5=10Marks)

1. Define truth.
2. What is righteousness?
3. Why peace is needed?
4. List the different forms of service.

Section-B

II. Answer the following questions

(2x15=30Marks)

5. (a) Differentiate between love, compassion, empathy, sympathy, and non-violence.

(OR)

- (b) What is non-violence? Why is it important?

6. (a) Discuss about an individual or organization known for their commitment to peace.

(OR)

- (b) Discuss about an individual, who remembered in history for practicing renunciation?

SECTION – A

I. Answer any SIX questions. All questions carry equal Marks (5 x 6 = 30 Marks)

1. If G is a group and $ab = ba \forall a, b \in G$ then prove that $(ab)^2 = a^2b^2$.
2. If H, K are two subgroups of G then prove that $H \cap K$ is a sub group of G .
3. Let $H = \{0, \pm 3, \pm 6, \pm 9 \dots\}$ then find all left cosets of H in $\mathbb{Z}$.
4. Determine the permutation $(1\ 2)(1\ 3\ 4)(1\ 5\ 2)$ is even or odd.
5. Find the order of the permutation $(5\ 3\ 1)(2\ 4\ 6\ 8)(1\ 3\ 5)$.
6. Define $\text{Stab } G(i)$ and $\text{Orbit } g(i)$.
7. Find all the units of $\mathbb{Z}_{14}$.
8. Prove that every sub-group of abelian group is normal sub-group.
9. Prove that Every Quotient group of abelian group is abelian..
10. Define Right ideal, Left ideal and ideal of Ring R .

SECTION B

II. Answer any ALL questions. All questions carry equal Marks (4 x 10 = 40 Marks)

- 11.(a) Prove that the necessary and sufficient condition of H to be a sub-group of G is that $\forall a, b \in H \Rightarrow ab^{-1} \in H$.

OR

- (b) G is a group and $a \in G$ with $|a|=15$ then find all generation of G . Compare the orders of a^3, a^6, a^9 , and a^{10} of G .

- 12.(a) State and prove Cayley's theorem.

OR

- (b) State and prove Orbit-Stabilizer theorem.

- 13.(a) Prove that union of two normal sub-group is again normal sub-group iff one is contained in other.

OR

- (b) State and prove fundamental theorem of Homomorphism on Groups.

- 14.(a) Prove that the intersection of two ideals of a ring is again an ideal.

OR

- (b) Let R be a commutative ring with unity and ' M ' be an maximal ideal of R then prove that R/M is field.

Code:4304 /BL

Faculty of Science
B.Sc. (Physics) II-Year CBCS IV-Semester Backlog Examinations
Nov/Dec – 2024

Paper: WAVES AND OPTICS

Time: 3Hours

Max. Marks: 70

SECTION-A

- I. Answer any SIX questions. All questions carry equal marks. (6X5=30Marks)
1. Derive an expression of Energy transport in string
 2. Write a short note on Tuning fork.
 3. Write the differences between biprism and Lloyd's Mirror fringes
 4. Explain the formation colours in thin films
 5. Write the differences between interference and diffraction
 6. A parallel beam of sodium light is allowed to be incident normally on a plane grating having 4250 lines per cm and a second order spectral line is observed to be deviated through 30° calculate the wavelength of spectral line.
 7. Describe the method of producing plane polarized light by reflection. Explain Brewster's law
 8. Two polarising sheets have their polarising directions parallel to that the intensity of the Transmitted light is maximum. Through what angle must either sheet be turned so that the intensity becomes one - half the initial value.
 9. The transverse wave velocity on a stretched string is 500m/s. Find the linear density of the string if the tension in the string is 2500N?
 10. Write a note on double refraction.

SECTION-B

- II. Answer ALL questions. All questions carry equal marks. (4X10=40Marks)
- 11.a). Derive the equation for the velocity of transverse wave along a stretched String State the laws of vibrations of stretched string.

OR

- 11.b). Obtain the expression for longitudinal vibrations of a bar free at both the ends.

12.a). Describe the construction and working of Fresnel's biprism. Explain how it can be used to find the thickness of a transparent material?

OR

12.b). Describe the construction working of a Michelson Interferometer and discuss the nature of interference pattern produced.

13.a). Explain the Fraunhofer diffraction due to single slit with neat diagram and deduce the conditions of maxima and minima of diffraction pattern

OR

13.b) Explain Fresnel's half period zones and discuss the concept of zone plate

14.a) Describe the construction and working of a Nicol's prism .Explain how it can be used as polarizer and analyzer

OR

14.b) Define specific rotation. Describe the construction and working of Laurent's half shade polarimeter.

Time: 3 Hours

Max. Marks: 70

SECTION – A**I. Answer any SIX questions. All questions carry equal Marks (6 x 5 = 30 Marks)**

1. Write the statement of 't' distribution.
2. Define one tailed and two tailed tests.
3. Define Statistical Testing of Hypothesis. Write suitable examples.
4. Explain test statistics of Difference of means in Large sample test.
5. State the assumptions of Chi-square test of Goodness of fit.
6. State the applications of student 't' statistic.
7. Define Run test for single sample.
8. Write mean and variance of median test.
9. Define sampling error of sampling distribution.
10. Define level of significance with example.

SECTION B**II. Answer any ALL questions. All questions carry equal Marks (4 x 10 = 40 Marks)**

- 11.(a) State and prove Neyman's Pearson's lemma.

OR

(b) Let $x_1, x_2, \dots, x_n$ be a random sample of size n drawn from the exponential population with parameter m and we are testing $H_0: m = m_0$ against $H_1: m = m_1$. Find most powerful critical region for testing M .

- 12.(a) If $x \geq 1$ is the critical region for testing $H_0: \alpha = 2$, against alternative $\alpha = 1$, on the basis of single observation from the population $(x) = \alpha \exp(-\alpha x), 0 \leq x < \infty$. Obtain the values of type I & II errors.

OR

(b) State Neyman – Pearson lemma prove that W is an MP region for testing $\mu = \mu_0$ against $\mu = \mu_1$. Then it is necessarily unbiased. Also prove that the same holds good if W is an UMP region.

- 13.(a) Explain t-test for difference of proportion.

OR

(b) Define chi-square test for independence of attributes.

- 14.(a) Explain assumptions and advantages of Non parametric test.

OR

(b) Distinguish between 'sign test' and Wilcoxon signed rank test.

SECTION – A

I. Answer any SIX questions. All questions carry equal Marks

(6 x 5 = 30 Marks)

1. Explain the functions of a DBA.
2. Write in brief about the various data models.
3. What is Functional Dependency? Explain.
4. List and explain the different types of attributes in an ER model.
5. Write about aggregate functions in SQL.
6. Write short notes on Cursors
7. What is a Transaction? Write about the properties of Transactions.
8. List the Threats for databases.
9. Write about the different types of database users.
10. Explain the concept of Deadlocks

SECTION B

II. Answer any ALL questions. All questions carry equal Marks

(4 x 10 = 40 Marks)

11. (a) State and explain the advantages and disadvantages of DBMS over File System.

OR

- (b) Explain set operations in Relational Algebra with examples.

12. (a) Write about Extended ER features.

OR

- (b) Define Normalization. Write about the different Normal Forms.

13. (a) List and explain different types of Joins in SQL.

OR

- (b) What is a Trigger? Write about the different types of Triggers.

14. (a) Explain Time Stamp based Concurrency control with example.

OR

- (b) Write short notes on various RAID Models.

Time: 3 Hours

Max. Marks: 70

SECTION – A

I. Answer any SIX questions. All questions carry equal Marks

(6 x 5 = 30 Marks)

1. Why Machine Learning is important?
2. What are Applications of Machine Learning?
3. What is Feature Vector?
4. What is Model Selection in ML?
5. Define Prediction
6. What are the two paradigms of Naive Bayes?
7. What is large item sets?
8. What is Parity Function?
9. What are Data generating distributions?
10. What is Basis Function?

SECTION B

II. Answer any ALL questions. All questions carry equal Marks

(4 x 10 = 40 Marks)

11. (a) What is Machine Learning? Explain about Types of Machine Learning Algorithms.

OR

- (b) Explain about ID3 Algorithm and KNN Algorithm with Examples.

12. (a) What is Support Vector Machine? And explain in detailed.

OR

- (b) Explain about any ten Meta-Characters with Examples.

13. (a) What is Naive Bayes Technique? and Explain its Model.

OR

- (b) What is Biological Neural Network in Machine Learning? What is Multi Layer network in Machine Learning?.

14. (a) What is apriori algorithm in data mining? What are basic steps in apriori algorithm?

OR

- (b) What are different types of Clustering algorithms?
