

**HALF-YEARLY (SAMPLE PAPER– 2026-27) (SET–A)**

**CLASS - XI**

**SUBJECT – ACCOUNTANCY (055)**

**TIME: 3 HOURS**

**M.M.: 80**

**General Instructions: -**

**This question paper contains 34 questions. All questions are compulsory.**

- 1. Question 1 to 20 carries 1 mark each.**
- 2. Questions 21 to 26 carries 3 marks each.**
- 3. Questions from 27 to 29 carries 4 marks each**
- 4. Questions from 30 to 34 carries 6 marks each**

**Q.1 internal Users of Accounting information are**

- (A) Potential Investors
- (B) Creditors
- (C) Management
- (D) Employees

**Q.2. Choose the odd one out**

- (A) Recording
- (B) Classifying
- (C) Controlling
- (D) summarising

**Q.3 Wasting assets is**

- (A) Machinery
- (B) Oil well
- (C) Computer
- (D) all of the Above

**Q.4 Livestock includes:**

- (A) Stock
- (B) Goods
- (C) Animals
- (D) Life insurance policy

**Q.5. Accrual concept is based on :**

- (A) Matching concept
- (B) Dual Aspect Concept
- (C) Cost concept
- (D) Going Concern Concept

**Or**

If Capital = Rs 2,00,000 and Liabilities = Rs 80,000, then Assets will be:\*

- a) Rs 2,80,000
- b) Rs 1,20,000
- c) Rs 2,00,000
- d) Rs 80,000

**Q.6. The accounting concept that is used to prepare Profit and Loss A/c is known as .....**

- (A) Cost
- (B) Revenue Realisation
- (C) Matching
- (D) Full disclosure

**Instructions for Q 7 and 8**

Given below are Two statements One labelled as Assertion(A) and other labelled as Reason (R) Which one of the following is correct? Codes:

- (A) Both Assertion (A) and Reason (R) are Correct and Reason (R) is the correct explanation of Assertion (A)
- (B) Both Assertion (A) and Reason (R) are Correct, but Reason (R) is not the correct explanation of Assertion (A)
- (C) Assertion (A) is incorrect, but Reason (R) is Correct.
- (D) Assertion (A) is correct, but Reason (R) is incorrect

**Q.7. Assertion (A)** Accounting has a wider scope than book keeping.

**Reason (R)** Book keeping involves recording, Classifying, summarising and analysis the financial transactions.

**Or**

**Assertion (A)** Current Liabilities refer to those Liabilities Which are to be paid in near future

**Reason (R)** Current Liabilities include Bank Overdraft, Creditors, outstanding Expenses etc.

**Q.8. Assertion (A):** Double Entry system means that each Transactions is recorded twice

**Reason (R)** Double Entry system means that each Transactions affects at least two accounts in opposite direction. One of them is debited and other is Credited.

**Q.9. Intangible Assets Do not include:**

- (A) Patents
- (B) Trade mark
- (C) Stock
- (D) Prepaid Expenses

**Or**

**Patent is a**

- (A) Tangible Assets
- (B) (B) Intangible Assets
- (C) Current Assets
- (D) None of the above

**Q.10 Accounting Standards are Useful:**

- (A) For Investors
- (B) For outside Parties
- (C) For Auditors
- (D) For all of the above

**Or**

The amount withdrawn by proprietor for personal use is called:\*

- a) Capital
- b) Drawings
- c) Expense
- d) Loss

**Q.11. Which Equation is incorrect out of the following:**

- (A) Assets = Liabilities + Capital
- (B) Capital = Assets – Liabilities
- (C) Liabilities = Assets – Capital
- (D) Assets = Liabilities- Capital

**Q.12. Loss by goods by fire should be credited to :**

- (A) Sales A/c
- (B) Loss A/c
- (C) Profit and Loss account
- (D) Purchase Account

**Q.13. Journal records the transactions of a firm in a**

- (A) Periodical Manner
- (B) Chronological Order
- (C) summarised manner
- (D) Systematic order

**Or**

Goods given as charity should be debited to:\*

- a) Sales A/c
- b) Purchases A/c
- c) Charity A/c
- d) Cash A/c

**Q.14. At the time of good Sold Output CGST /SGST / IGST account is ..... because it is .....**

- (A) Credited, Revenue/income
- (B) debited, Asset
- (C) Credited, Accrued Income
- (D) Credited, Liability

**Q.15. The balance of Petty cash is:**

- (A) Expenses
- (B) Profit
- (C) Assets
- (D) Liability

**Q.16. Purchase book is used to record:**

- (A) Purchases of Goods
- (B) Credit purchase of goods
- (C) Credit purchase of assets
- (D) All Credit purchase

**Or**

According to which principle, outstanding salary is recorded even if not paid?

- a) Dual Aspect Principle
- b) Accrual Principle
- c) Historical Cost Principle
- d) Materiality Principle

**Q.17. Cash Received from Kajal ₹ 36,000 after allowing her discount @ 10 % . Amount debited to discount account will be :**

- (A) ₹ 3,600
- (B) ₹ 4,000
- (C) ₹ 4,400
- (D) ₹ 40,000

**Q.18. Real accounts are Related to :**

- (A) Assets
- (B) Expenses, Losses and Income
- (C) Debtors, Creditors etc.
- (D) Capital

**Q.19. Rules of “ Debit the Receiver credit the Giver is related to :**

- (A) Personal Account
- (B) Real Account
- (C) Nominal Account
- (D) None of the above

**Or**

Which of the following is a liability?\*

- a) Prepaid Insurance
- b) Outstanding Wages
- c) Accrued Income
- d) Machinery

**Q.20 Features of Cash Book is :**

- (A) Debit and Credit side
- (B) part of Ledger
- (C) Recording of Cash and Bank transactions
- (D) All of the above

**Q.21. Give difference between Book- keeping and Accounting on the basis of stage, special skills and Nature of job.** (3)

**Or**

Distinguish between Trade debtors and trade creditors.

**Q.22. Distinguish between profit and Gain** (3)

**Q.23. State four Advantages of Accounting Standards.** (3)

**Or**

'A' Commenced his cloth business on 1<sup>st</sup> April, 2025 with a capital of ₹ 3,00,000 on 31<sup>st</sup> March, 2026 his assets were worth ₹ 5,00,000 and liabilities ₹ 1,00,000 Find out his closing capital and profits earned during the year.

**Q.24. Prepare Accounting equation from the following:**

- (A) Started business with cash ₹ 40,000, Goods ₹ 50,000 and Furniture ₹ 75,000
- (B) Charge Depreciation @ 10 % on Furniture.
- (C) Goods costing ₹ 10,000 sold for ₹ 11,000 in cash.

**Or**

Enter the following transactions in a Two-Column Cash Book for the month of March 2026:

- 1. March 1: Commenced business with cash Rs 50,000
- 2. March 3: Deposited into bank Rs 20,000
- 3. March 5: Bought goods for cash Rs 8,000
- 4. March 10: Received cash from Mohan Rs 5,000
- 5. March 15: Paid salary by cheque Rs 4,000
- 6. March 20: Withdrew from bank for office use Rs 3,000

**Q25. Pass journal Entries for the following: -**

- (A) Proprietor withdrew for his personal use cash ₹ 40,000 and goods worth ₹ 20,000.
- (B) Goods for ₹ 1,00,000 given as charity Goods distributed as free samples

**Q.26. Define following terms**

- (A) Gain (B) Revenue Expenditure (C) Current Assets (3)

**Q.27. State any three limitations of accounting** (4)

**Q. 28. Give any four Points of Distinction between cash and accrual basis of accounting.** (4)

**Q.29. What are contra Entries? Why these are not posted into the ledger?** (4)

**Or**

Identify the accounting principle violated in each of the following cases. Also explain the correct treatment:

- 1. A business owner purchased a car for personal use and recorded it in the books of the business.
- 2. Closing stock is valued at market price which is higher than cost price.
- 3. A small calculator costing Rs 500 is recorded as an asset and depreciated over 5 years.
- 4. Salary of Rs 10,000 for March 2026 is paid on April 5, 2026 but not recorded in march

**Q.30. Show the accounting equation on the basis of the following transactions and present a Balance sheet of the last new equation Balance.** (6)

- I. Mohan Commenced business with ₹ 70,000

- II. Purchase Goods on Credit ₹14,000
- III. Withdrew for private use ₹1,700
- IV. Purchase Goods for Cash ₹ 10,000
- V. Paid Wages ₹300
- VI Paid to Creditors ₹ 10,000

**Q.31.** What are Accounting Concepts? Explain any two of them.

(6)

**Or**

Identify the accounting principle violated in each of the following cases. Also explain the correct treatment:

1. A business owner purchased a car for personal use and recorded it in the books of the business.
2. Closing stock is valued at market price which is higher than cost price.
3. A small calculator costing Rs 500 is recorded as an asset and depreciated over 5 years.
4. Salary of Rs 10,000 for March 2026 is paid on April 5, 2026 but not recorded in march

**Q.32.** Pass Journal Entries for the following transactions.

1. Provide Depreciation on Furniture costing ₹ 50,000 @ 10 % and Machinery costing ₹ 3,00,000 @ 10 %
2. Received Cash ₹ 40,000 for bad debts written off last year
3. ₹ 2,00,000 for wages and ₹ 37,500 for salaries are outstanding.
4. Provide interest on drawings ₹ 8,000
5. Provide 8 % interest on capital amounting to ₹ 20,00,000
6. Purchased Furniture for ₹ 60,000 for the proprietor and paid the amount by cheque

**Q.33.** Pass Entries in the books of Mr. G of Gujrat assuming CGST @ 9 % and SGST @ 9 %

- A. Purchase Goods for ₹ 2,00,000 from Suryakant of Jaipur (Rajasthan ) on Credit.
- B. Sold Goods for ₹1,50,000 to Mr. Pawar of Mumbai (Maharashtra) and the cheque received was sent to bank.
- C. Sold Goods for ₹ 2,50,000 within the state on credit.
- D. Paid Insurance premium of ₹ 20,000 by cheque.
- E. Purchased Furniture for office for ₹ 60,000 by cheque.

(6)

**Or**

Journalize the following transactions. Identify the accounts involved and state whether they are Assets, Liabilities, Capital, Income or Expense.

1. Started business with cash Rs 1,00,000 and goods Rs 40,000
2. Bought furniture for Rs 20,000 and paid by cheque
3. Goods costing Rs 5,000 withdrawn for personal use
4. Interest due but not received Rs 2,000
5. Depreciation charged on machinery Rs 3,000
6. Bank loan taken Rs 50,000

**Q.34.** Prepare Two Column Cash Book from the following transactions and balance the books on 31<sup>st</sup> March, 2025.

- |           |                                                                                                                  |
|-----------|------------------------------------------------------------------------------------------------------------------|
| March 1   | Cash in Hand ₹ 50,000; Bank Overdraft ₹ 1,90,000                                                                 |
| March 2   | Purchase Goods from Rajesh Kumar of the List price of ₹ 50,000 at 5 % trade discount and payment made by cheque. |
| March 6   | Goods sold for ₹ 80,000 and payment received by cheque. Cheque deposited into Bank same day.                     |
| March 10. | Goods purchase for cash ₹ 19,800.                                                                                |
| March 15. | Furniture sold for 1,77,000 and payment received by cheque and cheque deposited into Bank same day.              |
| March 18. | Salaries paid ₹ 4,500                                                                                            |
| March 21  | settled the amount due to Raghu ₹ 2,000 by paying can ₹ 1,910                                                    |

**HALF-YEARLY (SAMPLE PAPER– 2026-27) (SET–A)**

**CLASS - XI**

**SUBJECT – APPLIED MATHEMATICS (241)**

**TIME: 3 HOURS**

**M.M.: 80**

**General Instructions:**

1. This Question Paper has 5 Sections A, B, C, D and E.
2. Section A has 20 MCQs carrying 1 mark each
3. Section B has 5 questions carrying 02 marks each.
4. Section C has 6 questions carrying 03 marks each.
5. Section D has 4 questions carrying 05 marks each.
6. Section E has 3 case based integrated units of assessment (04 marks each) with sub- parts of the values of 1, 1 and 2 marks each respectively.
7. All Questions are compulsory.

**SECTION-A**

1: Which of the following is equal to  $x$  ?

- (a)  $x^{12/7} - x^{5/7}$       (b)  $\sqrt[12]{(x^4)^{1/3}}$       (c)  $(\sqrt{x^3})^{2/3}$       (d)  $x^{12/7} \times x^{7/12}$

2: If  $\log_{0.5} 64 = x$ , then the value of  $x$  is

- (a)  $-4$       (b)  $-6$       (c)  $4$       (d)  $6$

3: The angle between two hands of a clock at 8:30 a.m is

- (a)  $75^\circ$       (b)  $80^\circ$       (c)  $85^\circ$       (d)  $45^\circ$

4: What was day on 15<sup>th</sup> August 1947?

- (a) Friday      (b) Saturday      (c) Sunday      (d) Monday

5: If the volume of cube is  $729 \text{ m}^3$ , then its surface area is

- (a)  $486 \text{ cm}^2$       (b)  $324 \text{ cm}^2$       (c)  $162 \text{ cm}^2$       (d)  $163 \text{ cm}^2$

6: In a cylinder, if radius is halved and height is doubled, then the volume will be

- (a) Same      (b) doubled      (c) halved      (d) four times

7: Which of the following is a null set ?

- (a)  $\{x: x \in \mathbf{N}, 2x - 1 = 3\}$       (b)  $\{x: x \in \mathbf{N}, x^2 < 20\}$   
(c)  $\{x: x \in \mathbf{N}, x \text{ is an even prime greter than } 2\}$       (d)  $\{x: x \in \mathbf{I}, x \leq 7\}$

8: Number of proper subsets of set containing 5 element is

- (a)  $4^5$       (b)  $4^2 - 1$       (c)  $2^4$       (d)  $2^5 - 1$

9: If  $a$ ,  $b$  and  $c$  are in A.P. , as well as in G.P. then which of the following is true?

- (a)  $a = b \neq c$       (b)  $a \neq b \neq c$       (c)  $a = b = c$       (d)  $a \neq b = c$

**10:** The number of two digits numbers divisible by 6 are

- (a) 24      (b) 14      (c) 15      (d) 20

**11:** The number of signals that can be made by 4 flags of different colours, taking one or more at a time is

- (a) 48      (b) 52      (c) 64      (d) 56

**12:** The number of 3 digit odd numbers, when repetition of digits is allowed is

- (a) 450      (b) 360      (c) 400      (d) 420

**13:** If  $f(x) = px + q$ , where p and q are integers  $f(-1) = 1$  and  $f(2) = 13$ , then p and q are

- (a)  $p = 4, q = 5$       (b)  $p = -4, q = 5$       (c)  $p = -4, q = -5$       (d)  $p = 4, q = -5$

**14:** Let A be the finite set containing 3 elements, then the number of functions from A to A is(

- (a) 512      (b) 511      (c) 27      (d) 26

**15:** The domain of the function  $f$  defined by  $f(x) = \log_e(5 - 6x)$  is

- (a)  $(-\infty, \frac{5}{6})$       (b)  $(\frac{5}{6}, \infty)$       (c)  $(-\infty, \frac{5}{6}]$       (d)  $[\frac{5}{6}, \infty)$

**16:** The decimal equivalent of the binary number 10101 is

- (a) 21      (b) 12      (c) 22      (d) 31

**17:** Which of the following binary numbers is equivalent to decimal number 47

- (a) 101111      (b) 11000      (c) 11001      (d) 1111

**18:** Characteristic of  $\log 48.75$  is

- (a) 1      (b) 2      (c) 3      (d) 4

**DIRECTION:** In the following questions number 19 and 20, a statement of Assertion (A) is followed by a statement of Reason (R). Mark the correct choice as:

- (A) Both A and R are true and R is the correct explanation of A.  
(B) Both A and R are true but R is not the correct explanation of A  
(C) A is true but R is false.  
(D) A is false but R is true.

**19: Assertion (A):** The year 2000 was a leap year, but 1900 was not a leap year.

**Reason (R):** A century year is a leap year only if it is divisible by 400.

**20: Assertion (A):** The number of odd days in a leap year is 1.

**Reason (R):** A leap year has 366 days, which is 52 weeks and 2 days.

## SECTION-B

**21:** Convert the binary number 1101110110 to the decimal number.

**22:** Simplify the  $(0.027)^{-\frac{1}{3}}$ .

**23:** At what time between 5:00 and 6:00 will the hands of clock be at right angles?

**24:** Let  $U = \{0,1,2,3, \dots, 50\}$ ,  $A = \{x: x = 6n, n \in \mathbf{W}\}$ ,  $B = \{x: x \text{ is a factor of } 72\}$ , then

- (i) Write the set A and B in roster form
- (ii) State  $n(A)$  and  $n(B)$ .

**25:** Find the indicated terms(s) of the following sequence:  $a_n = 4n - 3$ ;  $a_{17}, a_{24}$ .

## SECTION- C

**26:** How many terms of the G.P. 32,16,8. ... are needed to give the sum  $63\frac{3}{4}$ ?

**27:** Find the value of n, if  $(n + 1)! = 20 \times (n - 1)!$ .

**OR**

Find the value of n, if  $\frac{n!}{(n-2)!} = 110$

**28:** If  $f(x) = x^3 - \frac{1}{x^3}$ ; prove that  $f(x) + f\left(\frac{1}{x}\right) = 0$ .

**29:** Let  $R = \{(x, y): x, y \in \mathbf{Z}, y = 2x - 4\}$ . If  $(a, -2)$  and  $(4, b^2)$  belong to R, find the value of a and b.

**30:** If 4 goats or 6 sheep can graze a field in 40 days, how many days will 4 goats and 14 sheep take to graze the same field?

**OR**

One tap can fill a tank in 20 hours, while the other can empty it in 30 hours. The tank being empty and both taps are opened together, how long will it take for the tank to be half full?

**31:** The volume of cuboidal block of silver is  $10368 \text{ cm}^3$ . If its dimensions are in the ratio 3:2:1, find

- (i) The dimensions of the block.
- (ii) The cost of gold polishing its entire surface at Rs 0.50 per  $\text{cm}^2$ .

## SECTION- D

**32:** Find the domain and the range of the function:  $f(x) = \frac{1}{\sqrt{9-x^2}}$ .

**33:** If A is the A.M. between a and b, prove that

$$(A - a)^2 + (A - b)^2 = \frac{1}{2}(a - b)^2$$

**34:** In a survey of 600 students in a school, 150 students were found to be drinking tea and 225 drinking milk and 100 students were drinking both tea and milk. How many students were drinking neither tea nor milk?

**35:** A train running at 80 km/h leaves Lucknow station at 9 : 00 am and another train running at 100 km/ h leaves Lucknow station in the same direction at 11:00 am. How many km from Lucknow station do they meet?

### SECTION- E

**36:** The number of bacteria in a certain culture doubles every hour. Given that the number of bacteria present at the end of 4<sup>th</sup> hour was 160000.

Based on the above information, answer the following questions:

(i) The number of bacteria present at the end of 7<sup>th</sup> hours was

- (a) 640000      (b) 1280000      (c) 320000      (d) 128000

(ii) The number of bacteria present originally was

- (a) 10000      (b) 20000      (c) 5000      (d) 1000

(iii) If the number of bacteria triples every hour, then the number of bacteria present at the end of 4<sup>th</sup> hours is

- (a) 27000      (b) 81000      (c) 270000      (d) 810000

**37:** A clock is a device used to measure, keep and indicate time. The clock is one of the oldest human inventions, meeting the need to measure intervals of time shorter than the natural units- the day, the lunar month and the year.

Based on the above information, answer the following questions:

(i) What is the angle through which the minute hand turn in one minute?

- (a) 6°      (b) 10°      (c) 12°      (d) 15°

(ii) If the length of the minute hand of a clock is 3.5 cm, find the area swept on the face of the clock by it between 9:05 am. and 9:25 am.  $\left(\pi = \frac{22}{7}\right)$

- (a)  $\frac{77}{18} \text{ cm}^2$       (b)  $\frac{77}{12} \text{ cm}^2$       (c)  $\frac{77}{8} \text{ cm}^2$       (d)  $\frac{77}{6} \text{ cm}^2$

(iii) By how much does the tip of the hour hand move in 1 hour ?

- (a) 3.6 cm      (b) 2.8 cm      (c) 2.2 cm      (d) 1.1 cm

**38:** A horse is tied to a pole at the centre of a rectangular field 100 m long and 80 m broad by a 14 m long rope. It is left to graze.

Based on the above information, answer the following questions:

(i) What area of the field is available to it for grazing?

- (a) 154 m<sup>2</sup>      (b) 308 m<sup>2</sup>      (c) 616 m<sup>2</sup>      (d) 1232 m<sup>2</sup>

(ii) How much area of the field is beyond its reach?

- (a) 7846 m<sup>2</sup>      (b) 7692 m<sup>2</sup>      (c) 7384 m<sup>2</sup>      (d) 6768 m<sup>2</sup>

(iii) Next day the horse is tied to the corner of the field by the same rope, how much area will it be able to graze on?

- (a) 38.5 m<sup>2</sup>      (b) 77 m<sup>2</sup>      (c) 154 m<sup>2</sup>      (d) 308 m<sup>2</sup>

**General Instructions:**

- (i) All questions are compulsory.
- (ii) The question paper has five sections and 33 questions.
- (iii) Section–A has 16 questions of 1 mark each; Section–B has 5 questions of 2 marks each; Section–C has 7 questions of 3 marks each; Section– D has 2 case-based questions of 4 marks each; and Section–E has 3 questions of 5 marks each.
- (iv) There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.

Wherever necessary, neat and properly labeled diagrams should be drawn.

**Section - A**

**1- The term 'systematics' refers to**

- (a) Identification and classification of plants and animals
- (b) Nomenclature and identification of plants and animals
- (c) Diversity of kinds of organisms and their relationship
- (d) Study of habitats of organisms and their classification

**2- All eukaryotic unicellular organisms belong to**

- (a) Monera
- (b) Protista
- (c) Fungi
- (d) Bacteria

**3- Difference between virus and viroid is**

- (a) Absence of protein coat in viroid but present in virus
- (b) Presence of low molecular weight RNA in virus but absent in viroid
- (c) Both (a) and (b)
- (d) None of the above

**4- Members of Phycomycetes are found in**

- (i) Aquatic habitats
- (ii) On decaying wood
- (iii) Moist and damp places
- (iv) As obligate parasites on plants Choose from the following options.
- (a) None of the above
- (b) (i) and (iv)
- (c) (ii) and (iii)
- (d) All of the above

**5- Cyanobacteria are classified under**

- (a) Protista
- (b) Plantae
- (c) Monera
- (d) Algae

**6- In some animal groups, the body is found divided into compartments with serial repetition of at least some organs. This characteristic feature is called**

- (a) Segmentation
- (b) Metamerism
- (c) Metagenesis
- (d) Metamorphosis

**7- Birds and mammals share one of the following characteristics as a common feature.**

- (a) Pigmented skin
- (b) Pneumatic bones
- (c) Viviparity
- (d) Warm blooded nature

**8- Rearrange the following zones choose the correct option as seen in the root in vertical section and choose the correct option**

- (a) Root hair zone
- (B) Zone of meristems
- (C) Root cap zone
- (D) Zone of Maturation
- (E) Zone of elongation
- (a) C, B, E, A, D
- (b) A,B,C,D,E
- (c) D, E, A, C, B
- (d) E, D, C, B, A

**9- Epiblema of roots is equivalent to**

- (a) Pericycle
- (b) Endodermis
- (c) Epidermis
- (d) Stele

**10- Select one which is not true for ribosomes.**

- (a) Made of two subunits
- (b) Form polysome
- (c) May attach to mRNA
- (d) Have no role in protein synthesis

**11- Who proposed the fluid mosaic model of plasma membrane?**

- (a) Camillo Golgi
- (b) Schleiden and Schwann
- (c) Singer and Nicolson
- (d) Robert Brown

**12- Which of the following is not true for an eukaryotic cell?**

- (a) Cell wall is made up of peptidoglycans
- (b) It has 80S type of ribosome present in the cytoplasm
- (c) Mitochondria contain circular DNA
- (d) Membrane bound organelles are present

**Question No. 13 to 16 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:**

**(a) Both A and R are true and R is the correct explanation of A.**

**(b) Both A and R are true and R is not the correct explanation of A.**

**(c) A is true but R is false.**

**(d) A is false but R is true.**

**13- Assertion:** Botany deals with the study of plants and zoology deals with the study of animals.

**Reason:** Biology is the study of living beings.

**14- Assertion:** Bacteria are prokaryotic.

**Reason:** Bacteria do not possess true nucleus and membrane bound cell organelles.

**15- Assertion:** The colour of brown algae varies from olive green to brown.

**Reason:** In brown algae, fucoxanthin is responsible for colour variation.

**16 Assertion:** Organisms are made up of cells.

**Reason:** Cells are structural unit of living organisms. A cell keeps its chemical composition steady within its boundary.

### **Section - B**

**17- In a given habitat we have 20 plant species and 20 animal species. Should we call this as 'diversity' or 'biodiversity'? Justify your answer. –**

**18- Are the different types of plastids interchangeable? If yes, give examples where they are getting converted from one type to another.**

**19- Comment on the cartwheel structure of centriole.**

**20- Draw the neat and clean labeled diagram of T.S. of dicot stem.**

**21- Frog is a poikilotherm, exhibits camouflage and undergoes aestivation and hibernation, how are all these beneficial to it?**

### Section -C

22- *Brassica compestris* Linn

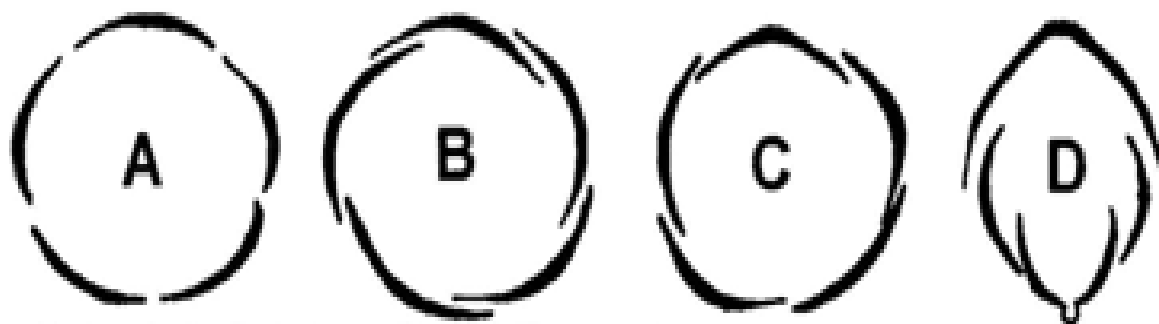
- Give the common name of the plant.
- What do the first two parts of the name denote?
- Why are they written in italics?
- What is the meaning of Linn written at the end of the name?

23- What part of the plant would show the following?

- Radial vascular bundle
- Polyarch xylem
- Well-developed pith

24- Palm is a monocotyledonous plant, yet it increases in girth. Why and how?

25- Identify the aestivation and write about each of the followings-.



26- Why is maize grain usually called as a fruit and not a seed?

27- Seeds of some plants germinate immediately after shedding from the plants while in other plants they require a period of rest before germination. The later phenomena is called as dormancy. Give the reasons for seed dormancy and some methods to break it..

28- Name-

- A limbless animal ‘
- A cold-blooded animal
- A warm blooded animal
- An animal possessing dry and comified skin
- An animal having canal system and spicules
- An animal with cnidoblasts

### Section -D

**Q. No. 29 and 30 are case-based questions. Each question has sub parts with internal choice in one sub part**

29- Alex used to go to vegetable market with his grandfather, a retired biology teacher. Grandfather told Alex that brinjal, chillies and tomato belong to the same family of plants and asked him to find out the similarity in these plants. Alex found that it's a large family, commonly called as the ' potato family'. Plants belonging to this family are mostly herbs, shrubs and rarely small trees. Many plants belonging to this family are source of food, spice, medicine, fumigatory, and ornamental.

**Answer the following questions:**

**(I). The name of this family is**

- Solanaceae
- Fabaceae
- Liliaceae
- Brassicaceae.

**(II). Fruits of this family are known as**

- a. Berry or capsule                      b. Legume                      c. Endosperm                      d. Cotyledon.

**(III). Aestivation in calyx and corolla of this family is**

- a. Valvate                      b. Imbricate                      c. Twisted                      d. Vexillary.

**(IV). Stamens of the flowers belonging to this family are mostly attached with petals. This condition is known as**

- a. Epipetalous                      b. Epiphyllous                      c. Polyandrous                      d. Monadelphous.

**30-** The students observed a cockroach moving rapidly using jointed appendages and possessing an exoskeleton made of chitin. Later, they visited the vertebrate gallery where fishes, amphibians, reptiles, birds, and mammals were displayed. They noticed that fishes respired through gills, amphibians could live both on land and in water, reptiles had dry skin, birds possessed feathers and wings, while mammals had mammary glands and external ears.

- a. Which feature of cockroach places it under phylum Arthropoda?  
b. Name the substance forming the exoskeleton in arthropods.  
c. Which group among vertebrates is considered the first to live both on land and water?  
d. Mention one adaptation in fishes for aquatic life.

#### **Section -E**

**31- Write the functions of the following:**

- a. Centromere                      b. Cell wall                      c. Smooth ER                      d. Golgi Apparatus                      e. Centrioles

**32-** Describe characteristics of family Solanaceae in semi-scientific language.

**OR**

Draw a neat and well labeled diagram of male or female reproductive system of a frog.

**33-** Describe the various types of placentation found in flowering plants with diagram.

**OR**

Give the contributions of the following scientists in formulating the cell theory

- a. Rudolf Virchow  
b. Schielden and Schwann

**General Instructions:**

1. This question paper contains 34 questions.
2. Marks are indicated against each question.
3. Answers should be brief and to the point.
4. Answers to the questions carrying 3 marks may be from 50 to 75 words.
5. Answers to the questions carrying 4 marks may be about 150 words.
6. Answers to the questions carrying 6 marks may be about 200 words.
4. Attempt all parts of the question together.

1. The Bhola Pvt. Ltd. owns one hundred trucks. These trucks are used for transporting goods on hire. This company is working quite successfully under the supervision of the Divisional Manager, Rekha Shrivastava. Identify the type of industrial activity which is conducted by the Bhola Pvt. Ltd.: [1]

- (a) Primary Industrial Activity
- (b) Secondary Industrial Activity
- (c) Tertiary Industrial Activity
- (d) None of these

2. Praveen and Ajay are two friends. Both of them are doing different business. Praveen's business is facing change in fashion and change in prices and he is also very upset because of tough competition. On the other hand, a great hurdle is there in Ajay's business because of the dishonesty of employees, dishonesty of customers and striker and lockouts. [1]

Point out the type of business risk Mr Ajay's suffering from:

- (a) Human Causes
- (b) Economic Causes
- (c) Natural Causes
- (d) Technical Causes

3. Every business has an important objective of developing new ideas or methods in the way something is done or made. It may be related to introducing something new in (i) Products or services and (ii) activities needed to supply products and services. No business enterprise can flourish in a competitive world without it. [1]

Identify the objective of business highlighted here:

- (a) Profit earning
- (c) Providing employment
- (b) Innovation
- (d) None of these

4. Read the following statements-Assertion (A) and Reason (R). Choose one of the correct alternatives given below: [1]

**Assertion (A):** Sah-jog hundi is one of the 'Darshani Hundies'.

**Reason (R):** Sah-jog hundi is made payable to order following a fixed term.

- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).
- (b) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A).
- (c) Assertion (A) is true but Reason (R) is false.
- (d) Assertion (A) is false but Reason (R) is true.

**5. "On account of heavy losses, the personal properties of a sole proprietor can be used for repayment to the creditors." To which of the characteristics of Sole Trade does this statement relate? [1]**

- (a) Undivided risk
- (c) Secrecy
- (b) Individual ownership
- (d) Unlimited liability

**6. Choose the incorrect option regarding the limitations of Hindu Joint family Business: [1]**

- (a) Effective control
- (b) Limited Resources
- (c) Unlimited Liability
- (d) Dominance of Karta

**7. Identify the concept of 'form of business organisation' illustrated by the picture given here: [1]**



- (a) Registration of partnership
- (b) Formation of cooperative society
- (c) Formation of company organisation
- (d) Choice of form of business organisation

**8. Choose the correct statement regarding producer's cooperative societies: [1]**

- (a) These societies are set up to protect the interest of small producers.
- (b) Such societies are established to help small producers in selling their products.
- (c) These societies are established to protect the interest of farmers by providing better inputs at a reasonable cost.
- (d) These societies are set up for providing easy credit on reasonable terms to the members.

**9. Out of the following which is not the feature of Public Enterprises [1]**

- (a) State Ownership
- (b) State control
- (c) Public Accountability
- (d) Less political intervention

**10. Out of the following which is established by a special Act of the Parliament or State Assembly: [1]**

- (a) LIC
- (b) Indian Railways
- (d) Coal India Ltd.
- (c) Hindustan Machine Tools

**11. A government company is any company in which the paid-up capital held by the government is not less than [1]**

- (a) 49 per cent
- (b) 51 per cent
- (c) 50 per cent
- (d) 25 per cent

**12. Match the 'Forms of Enterprises' in Column-1 with their respective statement in Column-II.**

**[1]**

|   | Column I               |     | Column I                      |
|---|------------------------|-----|-------------------------------|
| A | Department Undertaking | i   | Department of Ministry        |
| B | Statutory Corporation  | ii  | Indian Companies Act 2013     |
| C | Government Company     | iii | Special Act of the Parliament |
| D | Private Sector         | iv  | Sole Proprietorship           |

(a) (A)- (i), (B)- (iii), (C)- (ii), (D)- (iv)

(b) (A)- (iv), (B)- (ii), (C)- (iii), (D)- (i)

(c) (A)- (i), (B)- (ii), (C)- (iii), (D)- (iv)

(d) (A)- (ii), (B)- (i), (C)- (iii), (D)- (iv)

**13. Which bank is known as 'Apex Bank' of India?**

**[1]**

- (a) State Bank of India
- (b) Reserve Bank of India
- (c) Central Bank
- (d) Bank of India

**14. \_\_\_\_\_ is a technique which distributes the risk of one person among many.**

**[1]**

- (a) Transport
- (b) Insurance
- (c) Warehousing
- (d) Banking

**15. Identify the postal service under which a receipt is issued by the post office.**

**[1]**

- (a) Speed Post
- (b) UPC
- (c) Register Post
- (d) Parcel

**16. Out of the following which is not a public sector bank:**

**[1]**

- (a) HDFC Bank
- (b) Bank of India
- (c) Indian Bank
- (d) UCO Bank

**17. Statement I: In traditional business a business unit is situated near to the source of raw material or the point of sale.**

**Statement II: In e-business the level of operating cost is high.**

Choose the correct option from the following:

- (a) Statement I is true and Statement II is false.
- (b) Statement II is true and Statement I is false.
- (c) Both the statements are true.
- (d) Both the statements are false.

**18. e-Business includes:**

- (a) e-Commerce
- (b) Production
- (c) Product development
- (d) All of the above

**19. B2B Commerce means:**

- (a) Firm's interactions with other businesses
- (b) Firm's interactions with its customers
- (c) Firm's internal processes
- (d) None of the above

**20. The payment mechanism typical to e-business**

- (a) Cash on Delivery (COD)
- (b) Cheques
- (c) Credit and Debit Cards
- (d) e-Cash

**21. How would you classify business activities?**

**[3]**

**OR**

Can a minor become the member of a joint Hindu family business?

**22.** You are a student of class-11. You have full knowledge of the different forms of business organisation. Mr Rohan wants to set up a business. He needs your help in choosing a business organisation. He has two main expectations from the business organisation. **[3]**

- (i) Limited liability.
- (iii) Continuity

What suggestions will you give to Mr Rohan and why?

**23. Explain the concept of the public sector and the private sector.**

**[3]**

**OR**

Write the various types of Business services.

**24. 12.** 'Grehni Foods Private Limited' is such a company which does the business of Grocery Items of daily domestic usage. Its business is spread throughout Delhi. The company's 35 stores are providing their services to the residents of Delhi. All the business activities of this company depend upon Internet. Its main activities are as follows: Obtaining Information about Goods, Ordering Goods, Receiving Orders of goods, Making Payments, Getting Payment, Stock Management, Product Development, Accountancy and Human Resource Management. The Company's stores being spread at distant places, all of them use the medium of Internet for Mutual Dealings. **[3]**

- (a) Which system of business of being followed by 'Grehni Foods Private Limited'-Traditional or Modern.
- (b) Give the special name of the business system identified in Part (a).
- (c) Which particular field of e-Business is indicated from the mutual dealing being done on the Internet by the different stores/departments of the company?

**25. Explain the 'Speed and Global Reach' as benefits of e-business.**

**[4]**

**OR**

"Life insurance involves both Protection and Investment." Explain

**26. State four features of MNC's.**

**[4]**

**OR**

Discuss the factors that help in choosing a suitable form of organisation.

**27.** The two friends, Kritika and Sonam started a business by the name of 'Kriso Fancy Dress Shoppy'. Both of them invested equal capital in the business. At the start of the business, because of her domestic circumstances, Sonam had placed one condition before Kritika that if unfortunately they suffered a heavy loss in their business, she would

not be able to give anything except the capital invested in the business. Kritika had accepted this condition. Their business was gradually growing well. One reason for this was that in schools the children were asked to come in fancy dresses on different occasions. They were fully satisfied with their business. [4]

(a) To what form of business organisation is concerned the above paragraph?

(b) The knowledge of what factor of the form do we get as identified in the part (a).

(c) Write about two types concerned with the factor identified in the part (b) as described in the paragraph.

**28.** Write four difference between business and profession. [4]

**29.** 'Rama Krishana Pvt. Ltd.' is a well-known company of its own industry. This company is earning a considerable profit. Inspired by the great profit, both the classes, the proprietors and the Employees, are using their utmost skill. Not only this but both the sides are also feeling inspired to do something special. They are making efforts to make good quality products available to the customers at a low price, to pay the shareholders a handsome dividend and the employees reasonable remuneration. The company's foundations has become so strong that there is no doubt about its continuity in the market for a long time. On the other hand, an other company of the similar industry namely Rama Pvt. Ltd. which is at the point of death, is likely to get closed any time because of decline in the profit. [4]

(a) Which aspect of business has been mentioned in the above paragraph?

(b) Quoting the relevant lines, write about the three points of the concerned aspect?

**30.** Mr Raman Lamba and his three brothers inherited ancestral property valued 30,00,000. They had a joint family. All the Lamba's brothers decided to start a business. They took a loan from PNB amounting 40,00,000. Because of good financial position they repay the loan timely. Raman being eldest, is responsible for taking all decisions to run the business efficiently. [4]

(a) Name the form of business organisation given in the above case.

(b) Name the specific designation of senior most member in this case.

(c) Name the specific designation of three other brothers next to Mr Raman.

(d) Highlight the nature of liability of all the four members of this business

**31.** A team of seven friends decided to jointly set up a public company. This company would be set up in such a region where the people were suffering from unemployment. All of them jointly selected a place where the company would run its business and where the company's registered office would be set up. Along with it, with the advice of specialists, it was also decided what method would be followed for the Issue and Allotment of shares. All the friends wanted their company to have a singular recognition and the people should get immediately attracted towards its products. It was felt that the very name of the company could become a reason for its recognition. For the name of the company they had several options before them. After a thorough consideration, the company was named 'Trimurti Limited'. Before the registration of the company, the method of Ratification of the contracts to be entered into by the company was also decided. Besides, all the friends jointly completed the remaining formalities of the setting up of the company. [6]

(a) The information of which two documents is obtained by us from the setting up of the company in the paragraph above?

(b) Quoting relevant lines identify two points each of the two documents identified about the setting up of the company.

**32.** One of the friends of Sumit Gosain, Prabal Jain was employed in the Panjab National Bank, Delhi. Sumit used to go to him in his bank so often. When Sumit would see Prabal working in the bank, he liked it very much. He would listen to the conversation going on between Prabal and his customers very carefully. One day Sumit had gone to the bank to get a Bank Draft made. Then he noticed a customer, named Trilok Tendulkar, deposited a cheque of Kanpur Branch and after withdrawing money, he went away. Sumit kept wondering how the customer of another branch had gone away after withdrawing money from the bank where he happened to be at that time. He asked Prabal about it.

Prabal removed his doubt saying that such a thing was possible. One day again Sumit went to Prabal in the bank with a purpose. There he noticed a customer of the bank, Anmol Batra, coming. He told Prabal that he wanted 40,000/- to be transferred to Chandigarh immediately. Prabal explained to him that it was not possible to transfer his money immediately; it would be done after some time. When some such cases of transfer would come, all of them would be transferred in a batch. Similarly, on another day, Sumit noticed Prabal talking to a customer of the bank. One bank customer, Praveen Bhardwaj, came and asked Prabal if he could get 5 Lakh transferred to Shimla immediately. Prabal replied in affirmative, that is, he could get it done. Prabal explained to him the whole process of doing so. Then, Sumit asked Prabal that one day the latter had refused to transfer 40,000 to Chandigarh immediately, how 5 Lakh would be transferred that day. The Prabal explained in detail to Sumit and he was satisfied. [6]

- (a) How on what basis could the payment have been made to Mr Trilok Tendulkar?
- (b) Why could not 40,000 of Mr Anmol Batra be transferred to Chandigarh immediately?
- (c) How, on what basis, the amount of 5,00,000 of Mr Praveen Bhardwaj could have been transferred to Shimla immediately?

**33.** Dimple Sahukar opened a Boutique along with ten workers. It was named 'Raja-Rani Boutique'. No problem of any type was faced in opening the Boutique. At her Boutique special dresses made for marriages and parties were sold. Several other Boutiques were also there in the market. Despite there being a lot of competition, 'Raja-Rani' Boutique was earning a good profit. Since all the profit went into the proprietor's pocket, she was getting inspired to work with great efficiency. With the increase in workload, the number of workers was increased from 10 to 20. Since the proprietor had a direct contact with the workers, there was no scope for any sort of carelessness. Now, including Dimple, there were 21 persons working in the Boutique. All of them were very happy. In this way her business was running very well. One day, unfortunately, the Boutique caught fire due to short circuit. Consequently, Dimple had to suffer a heavy loss. The circumstances deteriorated so much that Dimple had to dispose of her personal properties to repay the Boutique's debts. In order to revive the Boutique, Dimple had to work very hard and it took a long time.

- (a) To what form of business organisation is concerned the above paragraph?
- (b) The information of which two factors of the form of business organisation identified in (a) is being conveyed?
- (c) Quoting the relevant lines, write about four points in all of the factor identified in (b).

**34.** Differentiate between traditional business and e-business on any six basis. [6]

**OR**

What is the memorandum of association briefly? Explain its clauses.

**HALF-YEARLY (SAMPLE PAPER– 2026-27) (SET–A)**

**CLASS - XI**

**SUBJECT – CHEMISTRY (043)**

**TIME: 3 HOURS**

**M.M.: 70**

**General Instructions**

1. This question paper contains 33 questions. All questions are compulsory.
2. Section A: Q. No. 1 to 16 are MCQs & Assertion-Reason questions of 1 mark each.
3. Section B: Q. No. 17 to 21 are Very Short Answer type questions of 2 marks each.
4. Section C: Q. No. 22 to 28 are Short Answer type questions of 3 marks each.
5. Section D: Q. No. 29 to 30 are Long Answer type questions of 5 marks each.
6. Section E: Q. No. 31 to 33 are Case-based questions of 4 marks each.
7. Use of calculator is not permitted.

**SECTION A**

**Multiple Choice Questions**

**(1 Mark Each)**

**1. Which has maximum number of molecules?**

- a) 44 g CO<sub>2</sub>                      b) 48 g SO<sub>3</sub>                      c) 8 g H<sub>2</sub>                      d) 64 g SO<sub>2</sub>

**2. The prefix used for 10<sup>-9</sup> is:**

- a) Micro                      b) Nano                      c) Pico                      d) Femto

**3. Limiting reagent in a reaction is:**

- a) Present in excess                      b) Consumed completely first  
c) Catalyst                      d) Product

**4. For  $n = 4$ , the total number of orbitals possible is:**

- a) 4                      b) 8                      c) 16                      d) 32

**5. Which transition in hydrogen spectrum lies in visible region?**

- a) Lyman                      b) Balmer                      c) Paschen                      d) Brackett

**6. Number of radial nodes in 3p orbital:**

- a) 0                      b) 1                      c) 2                      d) 3

**7. Which element shows diagonal relationship with Be?**

- a) B                      b) Al                      c) Mg                      d) Li

**8. The correct order of ionic radii is:**

- a) Na<sup>+</sup> > Mg<sup>2+</sup> > Al<sup>3+</sup>                      b) Al<sup>3+</sup> > Mg<sup>2+</sup> > Na<sup>+</sup>  
c) Mg<sup>2+</sup> > Na<sup>+</sup> > Al<sup>3+</sup>                      d) Na<sup>+</sup> > Al<sup>3+</sup> > Mg<sup>2+</sup>

**9. Which species has shortest bond length?**

- a) O<sub>2</sub>                      b) O<sub>2</sub><sup>+</sup>                      c) O<sub>2</sub><sup>-</sup>                      d) O<sub>2</sub><sup>2-</sup>

**10. Shape of ClF<sub>3</sub> molecule is:**

- a) Trigonal planar                      b) T-shape                      c) See-saw                      d) Bent

**11. For an isolated system, internal energy change is:**

- a) Positive                      b) Negative                      c) Zero                      d) Cannot say

**12. Standard enthalpy of formation of all elements in their reference states is:**

- a) 0                      b) 1 kJ mol<sup>-1</sup>                      c) -1 kJ mol<sup>-1</sup>                      d) Variable

**Assertion-Reason Questions****(1 Mark Each)****Directions:****Choose the correct option:**

- a) Both A and R are true and R is the correct explanation of A.
- b) Both A and R are true but R is not the correct explanation of A.
- c) A is true but R is false.
- d) A is false but R is true.

**13. Assertion (A):** Nitrogen is diamagnetic.**Reason (R):** All electrons in nitrogen molecule are paired according to MOT.**14. Assertion (A):** First ionization enthalpy of N is greater than O.**Reason (R):** Half-filled p-subshell in N gives extra stability.**15. Assertion (A):** Molarity of a solution changes with temperature.**Reason (R):** Volume of solution changes with temperature.**16. Assertion (A):**  $\Delta H$  and  $\Delta U$  are equal for reactions with  $\Delta n_g = 0$ .**Reason (R):**

$$\Delta H = \Delta U + \Delta n_g RT$$

**SECTION B****Very Short Answer Questions****(2 Marks Each)****17.** A sample of drinking water has 0.001 mg of chloroform per litre. Express the concentration in ppm.**18.** Calculate the energy of one mole of photons of radiation having wavelength 300 nm.

Given:

$$h = 6.6 \times 10^{-34} \text{ Js}$$

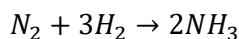
$$c = 3 \times 10^8 \text{ m s}^{-1}$$

$$N_A = 6.022 \times 10^{23}$$

**19.** Write the IUPAC name and electronic configuration of the element with atomic number 105. Predict its block.**20.** Explain why  $H_2O$  is liquid but  $H_2S$  is gas at room temperature.**OR**Why does  $PCl_5$  exist but  $NCl_5$  does not?**21.** Define:

- a) Extensive property
- b) State function

**SECTION C****Short Answer Questions (3 Marks Each)****22.** 50.0 kg of  $N_2$  and 10.0 kg of  $H_2$  are mixed to produce ammonia. Calculate the mass of  $NH_3$  formed and identify the limiting reagent.



23.a) Differentiate between emission spectrum and absorption spectrum.

b) Calculate the wavelength of light emitted when electron in hydrogen atom jumps from  $n = 4$  to  $n = 2$ .

Given:

$$R_H = 1.097 \times 10^7 \text{ m}^{-1}$$

24. Give reasons for the following:

a)  $Na^+$  is smaller than Na.

b)  $Cl^-$  is larger than Cl.

c) Ionization enthalpy of Ga is greater than Al.

25.a) Explain  $sp^2$  hybridisation using  $BCl_3$  as an example.

b) Why is the bond angle in  $NH_3$   $107^\circ$  while in  $NF_3$  it is  $102^\circ$ ?

26.a) Draw the molecular orbital diagram of  $O_2$  and calculate its bond order.

b) Is  $O_2$  paramagnetic? Justify.

**OR**

a) Define hydrogen bond. Write the conditions necessary for hydrogen bond formation.

b) Why is the density of water maximum at  $4^\circ C$ ?

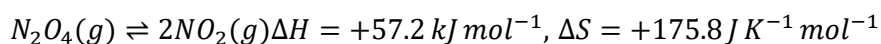
27. Enthalpy of combustion of  $C_2H_6(g)$  is  $-1560 \text{ kJ mol}^{-1}$ . Calculate  $\Delta_f H$  of  $C_2H_6$ .

Given:

$$\Delta_f H(CO_2) = -393.5 \text{ kJ mol}^{-1}$$

$$\Delta_f H(H_2O) = -285.8 \text{ kJ mol}^{-1}$$

28. For the reaction:



a) Calculate  $\Delta G$  at 298 K.

b) At what temperature will  $\Delta G = 0$ ?

## SECTION D

### Long Answer Questions

(5 Marks Each)

29.a) Discuss the main features of quantum mechanical model of atom.

b) An electron has speed of  $600 \text{ m s}^{-1}$  with uncertainty 0.005%. Find uncertainty in position.

Given:

$$h = 6.6 \times 10^{-34} \text{ Js}$$

$$m_e = 9.1 \times 10^{-31} \text{ kg}$$

OR

a) State photoelectric effect. Write Einstein's photoelectric equation and explain the terms involved.

$$h\nu = \phi + \frac{1}{2}mv^2$$

b) If kinetic energy of emitted electron is  $1.68 \times 10^{-18}\text{J}$  and work function is  $3.0 \times 10^{-19}\text{J}$ , calculate the frequency of incident light.

30.a) State any four postulates of VSEPR theory. Predict the shape and bond angle of:

i)  $I_3^-$

ii)  $BrF_5$

b) Explain why  $O_2$  is paramagnetic while  $N_2$  is diamagnetic using Molecular Orbital Theory.

OR

a) State and explain the Second Law of Thermodynamics. Define entropy.

b) 2 moles of an ideal gas expand reversibly from 5 L to 50 L at  $27^\circ\text{C}$ . Calculate:

i)  $\Delta S_{\text{sys}}$

ii)  $\Delta S_{\text{surr}}$

iii)  $\Delta S_{\text{total}}$

Given:

$$R = 8.314 \text{ J mol}^{-1}\text{K}^{-1}$$

### SECTION E

#### Case-Based Questions

(4 Marks Each)

##### Q31. Case Study:

The concept of mole links the mass of substance to the number of particles. Molar mass, Avogadro number, and molarity are key concepts.

$$1 \text{ mole} = 6.022 \times 10^{23} \text{ particles}$$

a) How many molecules are present in 5.6 L of  $O_2$  at STP? (1)

b) Calculate the number of oxygen atoms in 0.5 mole of  $CaCO_3$ . (1)

c) 1.5 g of ethane ( $C_2H_6$ ) on combustion gives how many grams of  $CO_2$ ? (2)

OR

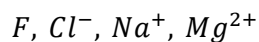
c) Find the molarity of 20% (w/w) NaOH solution if density =  $1.2 \text{ g mL}^{-1}$ .  
(Molar mass of NaOH = 40) (2)

##### Q32. Case Study:

Periodic properties like atomic size, ionization enthalpy, and electronegativity show regular trends in the periodic table. Modern periodic law is based on atomic number. Screening effect and effective nuclear charge explain many anomalies.

a) Why is second ionization enthalpy always greater than first ionization enthalpy? (1)

b) Arrange the following in increasing order of size and justify: (2)



c) Why do noble gases have positive electron gain enthalpy? (1)

**OR**

c) Element A has:

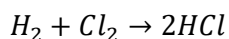
$$IE_1 = 520, IE_2 = 7300, IE_3 = 11800 \text{ kJ mol}^{-1}$$

Predict the group of element A. (1)

**Q33. Case Study:**

Bond enthalpy is the energy required to break one mole of bonds in gaseous state. It is used to estimate enthalpy change of reactions.

For the reaction:



Bond enthalpies are:

- H-H = 436 kJ mol<sup>-1</sup>
- Cl-Cl = 242 kJ mol<sup>-1</sup>
- H-Cl = 431 kJ mol<sup>-1</sup>

a) Define average bond enthalpy. (1)

b) Calculate  $\Delta_r H$  for the above reaction using bond enthalpies. (2)

c) Why is the actual  $\Delta_f H$  of HCl ( -92 kJ) different from the value calculated in part (b)? (1)

**OR**

c) Is the reaction endothermic or exothermic? How do you know? (1)

**HALF-YEARLY (SAMPLE PAPER– 2026-27) (SET–A)**  
**CLASS XI**  
**SUBJECT: - COMPUTER SCIENCE WITH PYTHON (083)**

**Time: 3 Hours**

**M.M: 70**

**General instructions:**

1. This question paper is divided into five Sections, Section A to E.
2. All questions are compulsory.
3. Section A has 21 questions carrying 1 mark each.
4. Section B has 7 very short Answer Type question carrying 2 marks each.
5. Section C has 3 short Answer Type question carrying 3 marks each.
6. Section D has 4 long Answer Type question carrying 4 marks each.
7. Section E has 2 long Answer Type question carrying 5 marks each.
8. All programming question are to be answered using Python Language only.

**SECTION A**

1. Which of the following is the correct extension of a Python file?  
a. .java                      b. .py                      c. .html                      d. .ppt
2. Which function is used to take input from the user in Python?  
a. Print ()                      b. type ()                      c. input ()                      d. eval ()
3. How do you write  $x^y$  in Python as an expression?  
a.  $x^y$                       b.  $x**y$                       c.  $x^^y$                       d. none of these
4. Evaluate the expression given below if  $A=16$  and  $B=15$ .  
 $A \% B // A$   
a. 0.0                      b. 0                      c. 1.0                      d. 1
5. What will be the output of `print(5 + 2 * 3)`?  
a. 21                      b. 11                      c. 15                      d. 10
6. Which symbol is used for single-line comments in Python?  
a. //                      b. <!-->                      c. #                      d. \*\*
7. Which keyword is used for decision making in Python?  
a. loop                      b. if                      c. repeat                      d. switch
8. Which is the correct form of declaration of dictionary?  
a. Day={1:'Monday',2:'Tuesday',3:'wednesday'}  
b. Day={1;'Monday',2;'Tuesday',3;'wednesday'}  
c. Day=[1:'Monday',2:'Tuesday',3:'wednesday']  
d. Day={1'Monday', 2'Tuesday', 3'wednesday'}
9. What is the output of this code?  
`>>>int("3" + "4")`  
a. "7"  
b. "34"  
c. 34  
d. 24
10. To store values in terms of key and value, what core data type does Python provide?  
a. List  
b. Tuple  
c. Class  
d. Dictionary
11. Which of the following is a valid variable name in Python?  
a. 2name  
b. class  
c. student\_name  
d. student-name
12. Which operator is used for exponentiation in Python?  
a. ^  
b. \*\*

- c. //
- d. %

13. The **input ()** return the value as \_\_\_\_ type.

- a. integer
- b. string
- c. floating point
- d. none of these

14. Which loop is used when the number of iterations is known?

- a. while loop
- b. infinite loop
- c. for loop
- d. nested loop

15. Which function is used to display output in Python.

- a. show ()
- b. print ()
- c. display ()
- d. output ()

16. How many times does the following code execute?

```
x=1
while ( x<=5):
    x+1
print (x)
```

- a. 6
- b. 1
- c. 4
- d. Infinite

17. What will be the output of print (10 // 3)?

- a. 3.33
- b. 3
- c. 1
- d. 4

18. Which of the following is an example of a mutable data type in Python?

- a. Tuple
- b. String
- c. List
- d. Int

19. What will be the output of print(5 > 3 and 2 < 1)?

- a. True
- b. False
- c. 0
- d. Error

Qu. 20 and 21 are ASSERTION AND REASONING based questions. Marks the correct choice as

- (a) both A and R are true and R is the correct explanation for A
- (b) both A and R are true and R is not the correct explanation for A
- (c) A is True but R is False
- (d) A is False but R is True

20. Assertion. The input() function in Python always returns data as a string.

Reason. User input must be converted into numeric type before performing arithmetic operations.

21. Assertion. Python is an interpreted programming language.

Reason. Python code is executed line by line.

## SECTION B

22. The code written below has syntactical errors. Rewrite the correct code and underline the corrections made.

```
n1=int(input(enter 1st number))
n2=int(input("enter 2nd numbrt")
sum=N1+N2
Print("sum of two numbers=",sum)
```

23. What are the operators? Give an example of unary operator and binary operator.

24. Differentiate between compiler and interpreter..

25. What is Cache memory?

26. Write a Python statement to.

- Take input from the user
- Display output on the screen

27. What is the difference between = and == operators in Python?

28. What will be the output of the following code?

```
x, y = 2, 6
x, y =y, x+2
print (x, y)
```

## SECTION C

29. Write a Python program to find the square of a number entered by the user.

30. Write a programme to calculate the area and perimeter of square.

31. Explain the different modes of using Python:

- Interactive Mode
- Script Mode.

## SECTION D

32. What will be the output produced by the following code?

```
a, b, c, d =9.2, 2.0, 4, 21
print ((a/4), (a//4))
print (b**c)
print (d//b)
print (a % c)
```

33. Explain the following data types in Python with one example each:

- Integer
- Float
- String
- Booleam

34. To convert decimal to binary

- (46)<sub>10</sub>
- (29)<sub>10</sub>
- (35)<sub>10</sub>
- (19)<sub>10</sub>

35. What is for loop? Write its syntax and give suitable example.

## SECTION E

36. Write a Python program to accept a number from the user and check whether it is positive, negative, or zero using if-elif-else statement.

Also display the square of the number entered.

37. Write a Python program to display the following pattern using nested loops:

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

**General Instructions**

1. This question paper contains two sections:
  - Section A: Micro Economics
  - Section B: Statistics for Economics
2. This paper contains 20 Multiple Choice Questions carrying 1 mark each.
3. This paper contains 4 Short Answer Type Questions carrying 3 marks each. Answers should be written in 60–80 words.
4. This paper contains 6 Short Answer Type Questions carrying 4 marks each. Answers should be written in 80–100 words.
5. This paper contains 4 Long Answer Type Questions carrying 6 marks each. Answers should be written in 100–150 words.

**SECTION – A**

**Micro Economics**

**Multiple Choice Questions**

*(1 Mark Each)*

**Q1. PPF is concave to the origin because of:**

- a) Increasing MRT
- b) Diminishing MRT
- c) Constant MRT
- d) None of these

**Q2. The word Economics is most closely connected with the word:**

- a) Free
- b) Scarcity
- c) Unlimited
- d) Restricted

**Q3. Opportunity cost is the:**

- a) Number of units sacrificed
- b) Number of units gained
- c) Cost of next best alternative foregone
- d) None of these

**Q4. Total utility is \_\_\_\_ at the point of satiety.**

- a) Minimum
- b) Maximum
- c) Zero
- d) None of these

**Q5. \_\_\_\_ measures the slope of an indifference curve.**

- a) Budget line
- b) Marginal Rate of Substitution
- c) Marginal Rate of Transformation
- d) None of these

**Q6. Indifference curves are convex to the origin because of:**

- a) Increasing MRS
- b) Diminishing MRS
- c) Law of Diminishing Marginal Utility
- d) Law of Equi-Marginal Utility

**Q7. In the following question, two statements are given – one labelled as Assertion (A) and the other labelled as Reason (R). Choose the correct alternative from the options given below.**

**Assertion (A):** When price of a commodity falls from Rs 10 to Rs 8 per unit, its quantity demanded rises from 20 units to 30 units.

**Reason (R):** There is an inverse relationship between price and quantity demanded, keeping other factors constant.

Options:

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true but R is not the correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

**Q8. Cardinality means utility can be:**

- a) Measured
- b) Ranked
- c) Not measured
- d) None of these

**Q9. Market rate of exchange also denotes:**

- a) Slope of PPC
- b) Slope of budget line
- c) Slope of indifference curve
- d) None of these

**Q10. When marginal utility is zero, total utility is:**

- a) Zero
- b) Minimum
- c) Maximum
- d) Negative

**Q11. Why do we study Economics?** (3)

**Q12. What is the main difference between Macroeconomics and Microeconomics?** (3)

**Or**

Differentiate between increase in Demand and Contraction in Demand.

**Q13. Differentiate between Positive Economics and Normative Economics.** (4)

**Q14. What is opportunity cost? Explain with the help of a numerical example.** (4)

**Or**

What do you understand by Law of Variable proportion. Use graph for Explanation.

**Q15. Define the Law of Diminishing Marginal Utility.** (4)

**Q16. Explain the central problems of an economy.** (6)

**Or**

Complete the following cost schedule and answer the questions given below:

\*Output (units)\* \*Total Fixed Cost Rs\* \*Total Variable Cost Rs\* \*Total Cost Rs\* \*AFC Rs\* \*AVC Rs\* \*AC Rs\* \*MC Rs\*

0 60 0 ? - - - -

1 60 20 ? ? ?

2 60 36 ? ? ? ? ?

3 60 48 ? ? ? ? ?

4 60 64 ? ? ? ? ?

Questions:

a) Calculate TC, AFC, AVC, AC and MC for all output levels. [4 marks]

b) Why is MC curve U-shaped in the short run? [1 mark]

c) What is the relationship between AC and MC when AC is falling? [1 mark]

**Q17.** Define an indifference curve and explain its properties. (6)

### SECTION – B Statistics for Economics

#### Multiple Choice Questions

*(1 Mark Each)*

**Q18. Economic problem arises due to:**

- a) Unlimited wants
- b) Scarcity of resources
- c) Alternative uses of resources
- d) All of the above

**Q19. \_\_\_\_ is a person who produces goods and services.**

- a) Consumer
- b) Service Provider
- c) Producer
- d) Service Holder

**Q20. Economics is the science of wealth according to:**

- a) Adam Smith
- b) Marshall
- c) Robbins
- d) None of these

**Q21. Which of the following are economic activities?**

- a) Distribution
- b) Production
- c) Consumption
- d) All of the above

**Q22. Scarcity of resources applies to:**

- a) Individuals
- b) Organisations
- c) Countries
- d) All of the above

**Q23. Welfare Economics was given by:**

- a) Marshall
- b) Adam Smith
- c) Keynes
- d) All of these

**Q24. Resources to satisfy human wants have \_\_\_\_ uses.**

- a) Alternative
- b) No
- c) Few
- d) None of these

**Q25. The basic reason for the existence of economic problems is:**

- a) Unlimited wants
- b) Scarcity
- c) Alternative uses
- d) None of the above

**Q 26.** In the following question, two statements are given – one labelled as Assertion (A) and the other labelled as Reason (R). Choose the correct alternative.

Assertion (A): Census method is more suitable when the field of investigation is large and items are heterogeneous.

Reason (R): In census method, data is collected from each and every unit of the population.

**Options:**

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true but R is not the correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

**Q27. Statistics is used by:**

- a) Businessmen
- b) Economists
- c) Government
- d) All of these

**Q28.** Explain the limitations of Statistics.

(3)

**Or**

Distinguish between Primary Data and Secondary Data on the basis of:

- a) Originality
- b) Time and cost involved
- c) Accuracy

**Q29.** Explain any three functions of Statistics.

(3)

**Q30.** Explain the Welfare Definition of Economics.

(4)

**Q31.** Explain Economic and Non-Economic Activities.

(4)

**Or**

You are appointed as an investigator to collect data on "Impact of online classes on Class XI students" in your city.

- a) Which method of primary data collection will be most suitable? Give two reasons. [2 marks]
- b) Frame a questionnaire with four relevant questions for your survey. [2 marks]

**Q32.** Explain the importance of Statistics in Economics.

(4)

**Q33.** What is data? Explain the merits and demerits of Primary and Secondary Data.

(6)

**Q34.** What is Census? Explain the National Sample Survey Organisation (NSSO).

**Or**

What is meant by classification of data? Explain any four objectives of classification.

[2+4 marks]

# HALF-YEARLY (SAMPLE PAPER– 2026-27) (SET–A)

## CLASS - XI

### SUBJECT – ENGLISH (301)

**TIME: 3 HOURS**

**M.M.: 80**

**General Instruction:**

**1 - The question paper contains three sections-**

**Section A- Reading**

**Section B- Writing & Grammar**

**Section C- Literature.**

#### SECTION- A (READING) - 26 MARKS

**1. Read the passage and answer the questions that follow.**

**10 Marks**

1. Life on our planet earth began with the sea; it is the birth place of life on the earth. The earth is the only planet of our solar system so far known which contains plenty of water and this water has made our earth colourful, pulsating with life of a vast variety.

2. At present sea occupies about 70 per cent of the earth's surface. In the southern hemisphere it occupies more area than that in the northern. About 97% of the total water on the surface of the earth is found in the seas and the remaining three per cent, which is generally fresh, in lakes, rivers, ponds, etc.

3. Sea has given food and shelter to countless creatures. It is a potential source of protein. In 1900 the world was only 150 crore, now it is more than 560 crore and is increasing at a very fast rate. As a result, there is a terrible hunger in many parts of the world. In Africa, Asia and South America, millions of people do not get enough to eat. Many die of malnutrition. Sea, if used scientifically and judiciously, can meet most of our demands.

4. Plankton or algae mostly constitutes the plant life. Like plant plankton there are also animal plankton; the smallest living creature in the sea. These animal plankton feed on plant plankton and small fish. Thus, there is an unbroken chain of life in the sea.

5. Arctic and Antarctic seas abound in plankton and algae and so in fish also. Blue whales, the largest living creatures of the world, are also found here in great number.

6. Some countries have developed sea farming to a great extent. The Japanese and the Hawaiians relish eating sea plants but it is not so in other countries though some use them to feed their cattle or as manure in their fields. The fact is that sea plants contain rich nutrients not found in other vegetarian food. It is good that even in our country some scientists have developed some recipes for curries, jams, etc. to be made from algae.

7. But we must remember one thing that sea is not to be exploited immediately. For example, man in his greed has hunted whales and some other sea creatures so recklessly that some of their species have either become extinct or are on the verge of extinction. Now, nations of the world have realised their folly and have taken some joint decisions. For example, one such decision is that the size of the holes in fishing nets should be big enough to let baby fish escape through. Otherwise, killing of large quantities of very young fish would have an adverse effect on the fish population. In the same way another decision is for the protection of the blue whales.

**On the basis of your reading of the passage, answer the following questions by choosing the best of the given choices.**

**(a) Write out the correct option.....**

- (i) Sky is the birth place of life on the earth.
- (ii) Moon is the birth place of life on the earth.
- (iii) Sea is the birth place of life on the earth.
- (iv) Land is the birth place of life on the earth.

**(b) Plankton or algae mostly constitutes.....**

- (i) the wild life
- (ii) the human life
- (iii) the sea life
- (iv) the plant life

**(c) The size of the holes in fishing nets should be big enough to let.....**

- (i) big fish stay in
- (ii) water flow out

- (iii) baby fish escape through
- (iv) more fish and water enter

**(d) Sea plants contain rich nutrients not found in.....**

- (i) other plants
- (ii) other vegetarian food
- (iii) non-vegetarian food
- (iv) milk and milk products

**(e) The antonym of 'plenty' is.....**

- (i) little
- (ii) inadequate
- (iii) scarcity
- (iv) minimal

**f) The antonym of 'active' is.....**

- (i) plant plankton
- (ii) vegetarian food
- (iii) blue whales
- (iv) extinct

**(g) According to the passage, the surface of the earth is largely covered with.....**

- (i) forests and mountains
- (ii) sea and river water
- (iii) human beings
- (iv) wild and domestic animals

**(h) The unbroken chain of life in the sea functions in this way.....**

- (i) algae → plankton → animal plankton → fish
- (ii) animal plankton → plant plankton and small fish
- (iii) small fish → animal plankton and plant plankton
- (iv) plant plankton → small fish → animal plankton

**(i) Sea farming would include.....**

**(i) using sea plants for food**

- (ii) using sea plants and animals for food
- (iii) planting earth plants in the sea
- (iv) All the above

**(j) In paragraph 3, the word used in the sense of with wisdom is.....**

- (i) judiciously
- (ii) potential
- (iii) pulsating
- (iv) scientifically

## **2. Read the passage and answer the questions that follow.**

**8 Marks**

**1.** In the democratic countries, intelligence is still free to ask whatever question it chooses. This freedom, it is almost certain, will not survive another war. Educationists should, therefore, do all they can, while there is yet time, to build up in the minds of their charges, a habit of resistance to suggestion. If such resistance is not built, the men and women of the next generation will be at the mercy of that skilful propagandist who contrives to seize the instruments of information and persuasion. Resistance to suggestion can be built up in two ways. First, children can be taught to rely on their own internal resources and not to depend on incessant stimulation from without. This is doubly important. Reliance on external stimulation is bad for the character. Moreover, such stimulation is the stuff with which propagandists bait their hooks, the jam in which dictators conceal their ideological pills. For a majority of people in the West, purposeless reading, purposeless listening-in, purposeless listening to radios, purposeless looking at films, have become addictions, psychological equivalents of alcoholism and morphinism. Things have come to such a pitch that there are many millions of men and women who suffer real distress if they are cut off for a few days or even few hours from newspapers, radio, music or moving pictures.

2. How can children be taught to rely upon their own spiritual resources and resist the temptation to become reading addicts, hearing addicts, seeing addicts? First of all, they can be taught how to entertain themselves by making things, by playing musical instruments, by purposeful study, by scientific observation, by the practice of some art, and so on. But such education of the hand and the intellect is not enough. The other method heightening the resistance to suggestion is purely intellectual and consists in training young people subject the diverse devices of the propagandists to critical analysis. The first thing that educators must do is to analyse the words currently used in newspapers, on platforms by preachers and broadcasters. Their critical analysis and constructive criticism should reach out to the children and the youth, with such clarity that they learn to react to forceful suggestions the right way at the right time.

**A.) On the basis of your reading of the passage, answer the following questions by choosing the best of the given choices.**

**(a) What does the author want educationists to do?**

- (i) Teach the students to use their freedom judiciously.
- (ii) Build in the students' minds a resistance to suggestion.
- (iii) Seize the instruments of information and persuasion.
- (iv) Teach students how to survive another war.

**(b) Mention the two ways in which resistance to suggestion can be built up.**

- (i) Reliance on external stimulation to be promoted and teaching of art.
- (ii) Reading and looking at films to be encouraged.
- (iii) Rely on one's own internal resources and intellectual analysis of the devices of propagandists.
- (iv) Read newspaper, enjoy music or moving pictures.

**(c) If resistance to suggestion is not built.....**

- (i) people will lose their spirituality.
- (ii) propagandists will acquire control of people's minds.
- (iii) individual creativity will be lost.
- (iv) there will be no critical analysis.

**(d) The spiritual resources of children consist of**

- (i) self-study
- (ii) making things, playing musical instruments
- (iii) listening to spiritual discourses
- (iv) analysing everything critically

**(e) Contrives in paragraph 1 means**

- (i) manages
- (ii) controls
- (iii) presents
- (iv) dictates

**f) Distress in paragraph 1 means**

- (i) loss
- (ii) anger
- (iii) disappointment
- (iv) suffering

**B.) Answer the following.**

(a) For a majority of people in the West, purposeless reading, listening to radio and looking at films, have become addictions. [True/False]

(b) The first thing that the educators must do is to critically ..... the words currently used in newspapers.

**3. Read the passage given below and answer the questions that follow:**

1. Everyone needs a holiday, both to relax and to have a change of environment. The holiday makers feel relaxed and refreshed at the end of the holiday and look forward to the resumption of their duties, be it at school, office or factories, with renewed vigour. This is the reason why all establishments grant their employees annual leave. With the end of the academic year the schools and universities grant their pupils a long holiday during mid-summer. This lasts until early September when the new school term starts. Of course, the parents will like to take advantage

of this and take their leave to coincide with the children's vacations. This has become a traditional holiday season in most European countries, particularly in England.

With the coming of August, the traditional holiday season in Britain reaches its peak point and most of the holiday resorts are packed to capacity. In order to avoid the crowd, some prefer to take their holiday a little earlier if facilities so warrant. Those who have already taken their holidays can console themselves not only with reflections on the happy days spent in the country, at the seaside or abroad, but also with the thought that holiday expenses are over for the year and that by taking an earlier holiday they have missed the August rush.

The main thing, of course, is the weather and that would be hazardous to prophesy. But whatever the weather is like, the essence of a holiday for most is the carefree atmosphere in which it can be enjoyed. "Take all you need but leave your

worries behind" is the sound advice for the holiday maker. Private worries are not always easy to escape from. However, even the pessimist would admit that for the moment things appear brighter than they have been.

Holiday time is surely a time for shedding serious pre-occupations and seeking the pleasures that appeal to us. It is true that we may not always succeed in finding them, indeed there are people who maintain that the great thing about holiday is that it gives you an ampler appreciation of home comforts a view no doubt more widely held among the elderly than you.

**(a) On the basis of your reading of the above passage make notes on it using headings and subheadings.**

**5 Marks**

**Use recognisable abbreviations and a format you consider suitable. Also supply a title to it.**

**(b) Write a summary of the passage in not more than 50 words using the notes made.**

**3 Marks**

### **SECTION- B (WRITING & GRAMMAR) 23 MARKS**

**1. Fill in the blanks using suitable forms of verbs.**

**3 Marks**

(a).....(expect) him here yesterday. He

(b).....(not come) till today. None

(c).....(know) what

(d).....(happen) to him. I

(e).....(worry) about him. I hope he

(f).....(be) safe.

**2. Fill in the blanks using suitable subject verb concord.**

**2 Marks**

i) Each of students..... given refreshments.

ii) Where ..... my spectacles?

**3. Rearrange the jumbled words.**

**2 Marks**

(a) where / a / and / for reading / are / a library / stored/place/ books / is / kept

(b) a/books/ of / good / all kinds / library / found/ are / in

**4. You are Harish/Harshita of 12, Seva Nagar, Pune. You want to sell your flat as you are shifting to another city for work. Draft a suitable advertisement in not more than 50 words to be published in The Pune Times under the classified columns.**

**3 Marks**

**5. Draft a Poster in about 50 words on Say No to Plastic Bags.**

**3 Marks**

**6. You are Rajini/Rajat Gaur. After seeing some obese children in your school, you are worried about the craze for junk food and electronic gadgets in students. Write a speech to be delivered in the morning assembly highlighting the need to have good eating habits and the benefits of outdoor activities. (120-150 words)**

**5 Marks**

**7. Smartphones should be distributed free to all adults. Write a debate either for or against the motion in 120-150 words. You are Deepak/ Deepti Narang.**

**5 Marks**

## SECTION- C(LITERATURE) 31 MARKS

### 8. Read the following extract and answer the questions that follow.

3 Marks

"The night dragged on with an endless, bitterly cold routine of pumping, steering and working radio. We were getting no replies to our Mayday calls - which was not surprising in this remote corner of the world. Sue's head had swollen alarmingly; she had two enormous black eyes, and now she showed us a deep cut on her arm. When I asked why she hadn't made more of her injuries before this, she replied, "I didn't want to worry you when you were trying to save us all."

**(a)** The statement "The night dragged on with an endless, bitterly cold routine..." means that

(i) the crew were busy steering the ship to a safe spot in turns

(ii) the crew were frantically sending messages and pumping out water in rotation

(iii) it was a punishing schedule on a long, cold night

(iv) all of the above

**(b)** "No replies to our Mayday calls" means

(i) no reply to the radio broadcast

(ii) no reply to the phone calls

(iii) no reply to the letters and notes no reply to the SOS

**(c)** The statement "not surprising in this remote corner of the world' refers to

(i) somewhere down the Pacific Ocean

(ii) deep in the Atlantic Ocean

(iii) 3500 kms east of Cape Town

(iv) The English Channel

### 9. Read the following extract and answer the questions that follow.

3 Marks

" All three stood still to smile through their hair At the uncle with the camera. A sweet face, My mother's, that was before I was born."

**(a)** "All three" refers to

(i) the poet's friends

(ii) the poet's mother, Dolly and Betty

(iii) cousins of the poet

(iv) the poet's neighbours

**(b)** The time period referred to in the stanza is

(i) after the death of the mother

(ii) before the birth of the poet

(iii) when the poet's mother was a young girl

(iv) when the poet was a young girl

**(c)** The narrator is recollecting this moment because

(i) she is missing her mother

(ii) she is feeling nostalgic

(iii) she is amusing herself looking at the picture

(iv) both (i) and (ii)

### 10. Read the following extract and answer the questions that follow.

4 Marks

" I knew my cousin Mourad enjoyed being alive more than anybody else who had ever fallen into the world by mistake, but this was more than even I could believe." In the first place, my earliest memories had been memories of horses and my first longings had been longings to ride.

**(a)** The phrase 'being alive' refers to

(i) he was a living being

(ii) he had a flourishing life

(iii) he was adventurous

(iv) being courageous

**(b)** The words "fallen into the world by mistake" match with

- (i) suddenly appear
- (ii) stumble into the world
- (iii) born in this world
- (iv) took birth by mistake
- (c) **The meaning of the word 'longing' is**

- (i) ache
- (ii) dream
- (iii) thirst
- (iv) desire

(d) **'This was more than even I could believe' refers to Mourad a ride. and offering Aram**

- (i) stealing a horse
- (ii) riding a horse
- (iii) buying a horse
- (iv) selling a horse

**11. Answer the following questions:**

**3x3=9**

- I) Why did king Tut's mummy have to undergo CT scan?
- II) Why is the image of the engine evoked by the poet in 'The Laburnum Top'?
- III) Why did Mourad steal the horse and then return it?

**12. Answer the following questions in detail.**

**2x6=12**

'Our optimistic attitude helps us to face extremely dangerous situations. ' Discuss with reference to the story ' We are not afraid to die.....'

- II) Describe the second visit of Mrs S's daughter to the house of Mrs Dorling. Why did She not wait to meet Mrs Dorling?

**General Instructions:**

1. This question paper contains 29 questions.
2. All questions are compulsory.
3. The question paper is divided into six sections – A, B, C, D, E and F.
4. Read all the questions carefully before answering.
5. Write neat and well-structured answers.
6. Marks are indicated against each question.

**Section A –**

**Multiple Choice Questions**

**(1 × 10 = 10 Marks)**

1. Which river was associated with the Mesopotamian Civilization?
  - a) Nile
  - b) Indus
  - c) Tigris and Euphrates
  - d) Yellow River
2. The city of Ur was located in:
  - a) Egypt
  - b) Mesopotamia
  - c) Greece
  - d) China
3. Which emperor divided the Roman Empire into eastern and western parts?
  - a) Augustus
  - b) Constantine
  - c) Diocletian
  - d) Nero
4. The Roman Empire was spread across:
  - a) One continent
  - b) Two continents
  - c) Three continents
  - d) Four continents
5. In medieval Europe, society was divided into:
  - a) Two orders
  - b) Three orders
  - c) Four orders
  - d) Five orders

**6. Which group formed the First Order?**

- a) Peasants
- b) Nobles
- c) Clergy
- d) Merchants

**7. Who founded the Mongol Empire?**

- a) Timur
- b) Babur
- c) Genghis Khan
- d) Kublai Khan

**8. The Yasa was:**

- a) A religious text
- b) A legal code
- c) A trade route
- d) A tax system

**9. Cuneiform script was written on:**

- a) Palm leaves
- b) Stone tablets
- c) Clay tablets
- d) Paper

**10. Serfdom was mainly associated with:**

- a) Mesopotamia
- b) Rome
- c) Medieval Europe
- d) China

**Section B**

**Very Short Answer Questions**

**(2 × 5 = 10 Marks)**

- 11. What was Cuneiform writing?
- 12. Mention any two features of Mesopotamian cities.
- 13. What was the significance of the Mediterranean Sea for the Roman Empire?
- 14. Who were serfs? Explain briefly.
- 15. State any two achievements of Genghis Khan.

**Section C**

**Short Answer Questions**

**(3 × 8 = 24 Marks)**

- 16. Explain any three factors responsible for the growth of cities in Mesopotamia.
- 17. How did trade contribute to the prosperity of the Roman Empire?
- 18. Describe the role of the Church in medieval European society.
- 19. Explain the relationship between lords and peasants in feudal Europe.

20. Discuss the military organization of the Mongol Empire.
21. Why is Mesopotamia called the "Land Between Rivers"?
22. Explain any three causes of the decline of the Roman Empire.
23. Describe the importance of horses in the lives of nomadic tribes.

### Section D

#### Long Answer Questions

(8 × 3 = 24 Marks)

24. "Urbanization transformed Mesopotamian society." Explain the statement with suitable examples.

OR

Discuss the contribution of writing to the development of Mesopotamian civilization.

25. Explain the administrative, economic and cultural features of the Roman Empire.

OR

Describe the social and economic life of the people in the Roman Empire.

26. Analyze the structure of feudal society in medieval Europe. How did the three orders function?

OR

Discuss the causes and consequences of the decline of feudalism in Europe.

### Section E

#### Case-Based Questions

(4 × 2 = 8 Marks)

27. Read the passage carefully and answer the questions:

"Mesopotamian temples were not only places of worship but also centers of economic activities. They controlled land, organized trade and employed a large number of workers."

- (a) What additional role did temples play besides religious functions? (2)
- (b) How did temples contribute to the economy? (2)

28. Read the passage carefully and answer the questions:

"The Mongol Empire connected distant regions of Asia and Europe, encouraging trade, communication and cultural exchange."

- (a) How did the Mongols promote trade? (2)
- (b) Mention one cultural impact of Mongol expansion. (2)

### Section F

#### Map Question

(1 × 4 = 4 Marks)

29. On the given outline map:

- a) Locate and label **Ur**. (1)
- b) Locate and label **Babylon**. (1)
- c) Locate and label **Constantinople**. (1)
- d) Locate and label **Mediterranean Sea**. (1)

# WORLD POLITICAL

**HALF-YEARLY (SAMPLE PAPER– 2026-27) (SET–A)**

**CLASS - XI**

**SUBJECT – MATHEMATICS (041)**

**TIME: 3 HOURS**

**M.M.: 80**

**General Instructions:**

1. This Question paper contains - five sections A, B, C, D and E. Each section is compulsory. However, there are internal choices in some questions.
2. Section A has 18 MCQ's and 02 Assertion-Reason based questions of 1 mark each.
3. Section B has 5 Very Short Answer (VSA)-type questions of 2 marks each.
4. Section C has 6 Short Answer (SA)-type questions of 3 marks each.
5. Section D has 4 Long Answer (LA)-type questions of 5 marks each.
6. Section E has 3 source based/case based/passage based/integrated units of assessment of 4 marks each with sub-parts.

**Section A- each carries 1 mark**

- Q.1 Let  $A = \{x : x \in \mathbb{R}, x > 4\}$  and  $B = \{x \in \mathbb{R} : x < 5\}$ . Then  $A \cap B =$   
(a) (4,5] (b) (4,5) (c) [4,5) (d) [4,5]
- Q.2 For any set A,  $(A')'$  is equals to  
(a)  $A \cap B$  (b)  $A' \cap B$  (c)  $A \cap B'$  (d) None
- Q.3 The difference of A and B is equals to – where  $A = \{1, 2, 3\}$  and  $\{3, 4, 5\}$   
(a)  $\{5\}$  (b)  $\{1,2\}$  (c)  $\{1,2,3\}$  (d)  $\phi$
- Q.4 If  $(x+3, 5) = (6, 2x + y)$  then x, y is equals to  
(a) 3,-1 (b) 3,0 (c) 0,-1 (d) None
- Q.5 The range of the function  $f(x) = \frac{x^2-x}{x^2+2x}$  is  
(a)  $\mathbb{R}$  (b)  $\mathbb{R} - \{1\}$  (c)  $\mathbb{R} - \{-\frac{1}{2}, 1\}$  (d) None
- Q.6 The radius of the circle whose arc of length  $15\pi$  cm makes an angle of  $3\pi/4$  radius at the centre is  
(a) 10 cm (b) 20 cm (c)  $11\frac{1}{4}$  cm (d)  $22\frac{1}{2}$  cm
- Q.7 If  $\tan x = -\frac{1}{\sqrt{5}}$  and x lies in the IV quadrant, then the value of  $\cos x$  is  
(a)  $\frac{\sqrt{5}}{\sqrt{6}}$  (b)  $\frac{2}{\sqrt{6}}$  (c)  $\frac{1}{2}$  (d)  $\frac{1}{\sqrt{6}}$
- Q.8 Which of the following is incorrect?  
(a)  $\sin x = -\frac{1}{5}$  (b)  $\cos x = 1$  (c)  $\sec x = \frac{1}{2}$  (d)  $\tan x = 20$
- Q.9  $\frac{1+2i+3i^2}{1-2i+3i^2}$  equals to -  
(a)  $i$  (b) -1 (c)  $-i$  (d) 4
- Q.10 if  $x + iy = \frac{1+5i}{1-6i}$ , then y

- (a)  $9/85$  (b)  $-9/85$  (c)  $53/85$  (d) None
- Q.11 If  $x$  is a real number and  $|x| < -5$ , then  
 (a)  $x \geq 5$  (b)  $-5 < x < 5$  (c)  $x \leq -5$  (d)  $-5 \leq x \leq 5$
- Q.12 If  $x < 7$ , then  
 (a)  $-x < -7$  (b)  $-x \leq -7$  (c)  $-x < -7$  (d)  $-x \geq -7$
- Q.13 If  ${}^mC_1 = {}^nC_2$ , then  
 (a)  $2m = n$  (b)  $2m = n(n+1)$  (c)  $2m = n(n-1)$  (d)  $2n = m(m-1)$
- Q.14 The number of word from the letter of the word 'BHARAT' in which B and H will never come together is  
 (a) 360 (b) 240 (c) 120 (d) None
- Q.15 If  $a, b, c$  are in G.P. and  $a^{1/x} = b^{1/y} = c^{1/z}$ , then  $xyz$  are in  
 (a) AP (b) GP (c) Both AP & GP (d) None
- Q.16 The  $n$ th term of a GP is 128 and the sum of its  $n$  terms is 255. If its common ratio is 2, then its first term  
 (a) 1 (b) 3 (c) 8 (d) None
- Q.17 The number of irrational terms in the expansion of  $(4^{1/5} + 7^{1/10})^{45}$  is  
 (a) 40 (b) 5 (c) 41 (d) None
- Q.18 The value of  $\tan 1^\circ \tan 2^\circ \tan 3^\circ \dots \tan 89^\circ$  is  
 (a) 0 (b) 1 (c)  $\frac{1}{2}$  (d) Not defined

### ASSERTION - REASON BASED QUESTIONS

In the following questions, a statement of assertion(A) is followed by a student of reason(R). choose the correct answer out of the following choices...

- (a) Both (A) and (R) are true and (R) is correct explanatory of (A).  
 (b) Both (A) and (R) are true and (R) is not the correct explanatory of (A)  
 (c) (A) is True but (R) is false  
 (d) (A) is false but (R) is true.

Q.19 Assertion (A) : Value of  $\sin(-270)^\circ$  is 1.

Reason(R) :  $\sin(180^\circ + \theta) = -\sin\theta$

Q.20 Assertion (A) : The expansion of  $(1 + x)^n = {}^nC_0 + {}^nC_1x + {}^nC_2x^2 + \dots + {}^nC_nx^n$

Reason(R) : If  $x = -1$ , then the above expansion is zero.

### Section – B – Each carries 02 marks

Q.21 For all sets A and B,  $A - (A - B) = A \cap B$

OR

If  $R = \{(x, y) : x, y \in W, x^2 + y^2 = 25\}$ , then find the domain and range of R.

Q.22 If  $\sin\theta + \operatorname{cosec}\theta = 2$ , then find  $\sin^2\theta + \operatorname{cosec}^2\theta$

Q.23 If  $\left(\frac{1-i}{1+i}\right)^{100} = a + ib$ , then find out a and b.

Q.24 If  $\frac{x}{5} < \frac{3x-2}{4} \leq \frac{5x-3}{5}$ , then solve for  $x \in \mathbb{R}$ .

Q.25 If  $\frac{1}{6!} + \frac{1}{7!} = \frac{x}{8!}$ , then find  $x$ .

**Section – C – each carries 03 marks.**

Q.26 Find domain and range of  $\frac{1}{\sqrt{9-x^2}}$

Q.27 Find  $\tan \frac{\pi}{12}$

Q.28 Find the values of  $x$  for which the functions  
 $f(x) = 3x^2 - 1$  and  $g(x) = 3+x$  are equal.

OR

Redefine the function  $f(x) = |x-2| + |2+x|$ ,  $-3 \leq x \leq 3$ .

Q.29 If  $\alpha$  and  $\beta$  are different complex numbers with  $|\beta| = 1$ , then find  $\left| \frac{\beta - \alpha}{1 - \bar{\alpha}\beta} \right|$ .

Q.30 If the letters of the word 'LATE' be permuted and the words so formed be arranged as in a dictionary, find the rank of the word LATE.

Q.31 Find three numbers in GP, whose sum is 13 and the sum of whose squares is 91.

OR

The sum of first three terms of a GP is  $\frac{39}{10}$  and their product is 1. Find the common ratio and the terms.

**Section – D – each carries 05 marks**

Q.32 Prove that  $\cos 2x \cos \frac{x}{2} - \cos 3x \cos \frac{9x}{2} = \sin 5x \sin \frac{5x}{2}$

OR

Prove that  $\cos 10^\circ \cos 30^\circ \cos 50^\circ \cos 70^\circ = \frac{3}{16}$

Q.33 A committee of 7 has to be formed from 9 boys and 4 girls. In how many ways can this be done when the committee consists of

- (i) Exactly 3 girls?
- (ii) At least 3 girls?
- (iii) At most 3 girls?

Q.34 Find the sum of the following series upto  $n$  terms

$$.6 + .66 + .666 + \dots$$

Q.35 (a) Find sets  $A, B$  and  $C$  such that  $A \cap B$ ,  $B \cap C$  and  $A \cap C$  are non-empty sets and  $A \cap B \cap C = \phi$

(b) Draw the Venn diagram of following: -

- (i)  $A' \cap B'$
- (ii)  $(A \cap B)'$
- (iii)  $(A \cup B) - (A \cap B)$

**Section – E – Each carries 04 marks**

Q.36 Four friends decide to play a game of cards. They picked a normal deck of cards of 52 playing cards.

The deck has 4 suits (Hearts, Diamonds, Spade and Clubs). Hearts and diamonds are Red in colour while spades and clubs are black in colour. Each suite has 13 cards each with one ace (A), 9 numbered cards (2 to 10) and 3 face cards (Jack(J), King(K) and Queen(Q)) based on the above information, answer the following questions:

- (i) In how many different ways can four card can be drawn from the deck?
- (ii) Find the no. of ways of selecting 4 cards belonging to four different suits.
- (iii) What are the numbers of ways of selecting cards of the sane colour?

OR

In how many ways 4 cards of same suit can be selected?

Q.37 To demonstrate the compound angle formulae in trigonometry, Mahesh and Siraj selected two angles 'A' and 'B' such that  $A, B \in (0, \frac{\pi}{2})$  and  $\sin A = 3/5$ ,  $\cos B = 9/41$ .

Answer the following question based on the above information.

- (i) Find the value of  $\cos A + \sin B$ .
- (ii) Find the value of  $\cos(A+B)$
- (iii) Find the value of  $\operatorname{cosec}(A-B)$

OR

Find the value of  $\tan(A-B)$

Q.38 During covid – 19, a pharmaceutical company decides to make antiviral pills at the rate of 1.5 times the pills made every last week. Based on the above information, answer the following questions -

- (i) If they have prepared 6750 pills in fourth week, then how many they have made in the first week?
- (ii) How many pills will be prepared in nth week?

OR

In which week they might have prepared 10125 pills

**General Instructions**

- Section – A: Attempt all questions. Each question carries 1 mark.
- Section – B: Attempt all questions. Each question carries 2 marks.
- Section – C: Attempt any two questions. Each question carries 6 marks.

**SECTION – A (8 × 1 = 8)**

Q1. हिंदुस्तानी शास्त्रीय संगीत में कितने थाट माने गए हैं?

- A. 12 B. 10 C. 18 D. 15

Q2. हिंदुस्तानी शास्त्रीय संगीत में सप्तक की कितनी संख्या है?

- A. 2 B. 5 C. 3 D. 9

Q3. राग भीमपलासी में कौन-सा थाट प्रयोग होता है?

- A. काफी B. खमाज C. कल्याण D. मारवा

Q4. ध्रुपद का आविष्कार किस शताब्दी में हुआ?

- A. 11वीं B. 12वीं C. 14वीं D. 15वीं

Q5. Choose the correct statement:

- A. नाट्यशास्त्र ग्रंथ पंडित सारंगदेव द्वारा रचित है।  
B. नाट्यशास्त्र ग्रंथ में 36 अध्याय होते हैं।  
C. राग भीमपलासी का गायन समय दिन का तृतीय प्रहर है।  
D. हिंदुस्तानी संगीत में थाटों की संख्या 22 है।

Choose the correct option:

- A. A & B B. B & C C. A & C D. B & D

**Q6. Match List – I with List – II**

| List – I                 | List – II         |
|--------------------------|-------------------|
| A. गमक ___ प्रकार है     | I. ध्रुपद         |
| B. भरतमुनि               | II. 15            |
| C. राजा मान सिंह तोमर    | III. नाट्यशास्त्र |
| D. तीनताल में ___ मात्रा | IV. 16            |

Choose the correct answer:

- A. A-I, B-II, C-III, D-IV B. A-III, B-I, C-IV, D-II  
C. A-II, B-III, C-I, D-IV D. A-IV, B-III, C-I, D-II

Q7. कथन – I : राग भीमपलासी का म तथा सा वादी-संवादी है।

कथन – II : राग भीमपलासी रात्रि के तृतीय प्रहर में गाया-बजाया जाता है।

सही विकल्प चुनिए:

- A. कथन-I और II दोनों सही हैं।  
C. कथन-I सही, किन्तु II गलत है।

- B. कथन-I और II दोनों गलत हैं।  
D. कथन-I गलत, किन्तु II सही है।

**Q8. कथन – I : ख्याल के आविष्कारक अमीर खुसरो हैं।**

**कथन – II : ध्रुपद एक मर्दाना गीत है। इस गायन में कंठ और फेफड़ों पर बल पड़ता है।**

**सही विकल्प चुनिए:**

- A. कथन-I और II दोनों सही हैं।  
C. कथन-I सही, किन्तु II गलत है।

- B. कथन-I और II दोनों गलत हैं।  
D. कथन-I गलत, किन्तु II सही है।

**SECTION – B (5 × 2 = 10)**

**Q9. किन्हीं दो पर संक्षिप्त टिप्पणी लिखिए:**

- नाद
- श्रुति
- सप्तक

**अथवा**

हिंदुस्तानी संगीत में थाट का संक्षिप्त विवरण दीजिए।

**Q10. “ध्रुपद गायन शैली” का संपूर्ण वर्णन कीजिए।**

**अथवा**

“ख्याल और तराना” के बारे में अपने शब्दों में समझाइए।

**Q11. तानसेन की जीवनी लिखिए।**

**अथवा**

पंडित विष्णु नारायण भातखंडे के संगीत में योगदान का संक्षिप्त विवरण दीजिए।

**Q12. नाट्यशास्त्र ग्रंथ का संक्षिप्त वर्णन कीजिए।**

**अथवा**

स्वर किसे कहते हैं? इनके प्रकार लिखिए तथा सात स्वरों के नाम बताइए।

**Q13. किन्हीं दो को परिभाषित कीजिए:**

- जाति
- लय
- ताल

**अथवा**

तीनताल का ठाह तथा बोल लिखिए।

**SECTION – C (2 × 6 = 12)**

**Note:** Answer any two of the following questions.

**Q14.** तीनताल और एकताल का परिचय देते हुए, तीनताल की दुगुन तथा एकताल की चौगुन लयकारी लिखिए।

**Q15.** राग भीमपलासी का संपूर्ण परिचय दीजिए तथा उसकी बंदिश की स्वरलिपि एवं कोई दो आलाप लिखिए।

**Q16.** अपने पाठ्यक्रम के सभी तालों का संपूर्ण परिचय दीजिए तथा दुगुन, तिगुन एवं चौगुन लयकारी लिखिए।

GENERAL INSTRUCTIONS / सामान्य निर्देश

1. This question paper contains four sections – A, B, C and D.

यह प्रश्नपत्र चार खंडों - A, B, C एवं D - में विभाजित है।

2. All questions are compulsory. However, internal choices have been provided in the long answer section, wherever applicable.

सभी प्रश्न अनिवार्य हैं। जहाँ लागू हो, वहाँ दीर्घ उत्तरीय प्रश्नों में आंतरिक विकल्प दिए गए हैं।

3. Read all the questions carefully before answering.

उत्तर लिखने से पहले सभी प्रश्नों को ध्यानपूर्वक पढ़ें।

4. Write your answers in neat and legible handwriting.

अपने उत्तर साफ़ एवं स्पष्ट हस्तलेख में लिखें।

5. Attempt the questions in the prescribed order as far as possible.

यथासंभव प्रश्नों का उत्तर दिए गए क्रम में ही लिखें।

6. Support your answers with relevant examples wherever necessary.

जहाँ आवश्यक हो, अपने उत्तरों को उपयुक्त उदाहरणों द्वारा स्पष्ट करें।

7. The marks allotted to each question are indicated against it.

प्रत्येक प्रश्न के अंक उसके सामने अंकित हैं।

8. There is no overall choice in the question paper unless specifically mentioned.

जब तक विशेष रूप से उल्लेख न हो, प्रश्नपत्र में समग्र विकल्प उपलब्ध नहीं है।

9. Draw neat and properly labelled diagrams/sketches wherever required.

जहाँ आवश्यक हो, साफ़-सुथरे एवं उचित नामांकन (Labeling) सहित रेखाचित्र/स्केच बनाइए।

10. Maintain discipline and do not use any unfair means during the examination.

परीक्षा के दौरान अनुशासन बनाए रखें तथा किसी भी प्रकार के अनुचित साधनों का प्रयोग न करें।

Section – A (Objective Type Questions) (1 × 5 = 5 Marks)

Q1. Choose the correct answer / सही उत्तर चुनिए:

1. The Dancing Girl sculpture belongs to / 'नृत्य करती युवती' की कांस्य प्रतिमा किस सभ्यता से संबंधित है?

- (a) Mauryan Civilization / मौर्य सभ्यता
- (b) Indus Valley Civilization / सिंधु घाटी सभ्यता
- (c) Gupta Period / गुप्त काल
- (d) Mughal Period / मुगल काल

2. The Great Bath is located at / महान स्नानागार कहाँ स्थित है?

- (a) Harappa / हड़प्पा
- (b) Mohenjo-Daro / मोहनजोदड़ो
- (c) Lothal / लोथल
- (d) Kalibangan / कालीबंगन

3. Ashokan Pillars are mainly made of / अशोक स्तंभ मुख्यतः किस पत्थर से बनाए गए हैं?

- (a) Marble / संगमरमर
- (b) Granite / ग्रेनाइट
- (c) Sandstone / बलुआ पत्थर
- (d) Wood / लकड़ी

4. Ajanta paintings are related to / अजंता की चित्रकला किस धर्म से संबंधित है?  
 (a) Jainism / जैन धर्म  
 (b) Sikhism / सिख धर्म  
 (c) Buddhism / बौद्ध धर्म  
 (d) Islam / इस्लाम
5. Stupa architecture is associated with / स्तूप वास्तुकला किस धर्म से संबंधित है?  
 (a) Hinduism / हिन्दू धर्म  
 (b) Buddhism / बौद्ध धर्म  
 (c) Christianity / ईसाई धर्म  
 (d) Islam / इस्लाम

**Section – B (Very Short Answer Questions) (2 × 3 = 6 Marks)**

**Q2. Answer any three / किन्हीं तीन प्रश्नों के उत्तर दीजिए :**

1. What is mural painting?  
भित्ति चित्रकला (Mural Painting) क्या है?
2. Name any two centres of the Indus Valley Civilization.  
सिंधु घाटी सभ्यता के किसी दो प्रमुख केंद्रों के नाम लिखिए।
3. What is the significance of the Lion Capital?  
सिंह शीर्ष (Lion Capital) का महत्व क्या है?
4. Name any two materials used in ancient Indian sculpture.  
प्राचीन भारतीय मूर्तिकला में प्रयुक्त किसी दो सामग्रियों के नाम लिखिए।

**Section – C (Short Answer Questions) (3 × 3 = 9 Marks)**

**Q3. Answer any three / किन्हीं तीन प्रश्नों के उत्तर दीजिए :**

1. Write the main features of Harappan Art.  
हड़प्पा कला की प्रमुख विशेषताओं का वर्णन कीजिए।
2. Explain the importance of Ashokan Pillars.  
अशोक स्तंभों के महत्व की व्याख्या कीजिए।
3. Describe the characteristics of Ajanta paintings.  
अजंता चित्रकला की विशेषताओं का वर्णन कीजिए।
4. Explain the importance of Buddhist architecture.  
बौद्ध वास्तुकला के महत्व की व्याख्या कीजिए।

**Section – D (Long Answer Questions) (5 × 2 = 10 Marks)**

**Q4. Answer any two / किन्हीं दो प्रश्नों के उत्तर दीजिए :**

1. Describe the artistic achievements of the Indus Valley Civilization.  
सिंधु घाटी सभ्यता की कलात्मक उपलब्धियों का विस्तार से वर्णन कीजिए।
2. Explain the contribution of Mauryan Art.  
मौर्यकालीन कला के योगदान की व्याख्या कीजिए।
3. Discuss the importance of Ajanta Cave Paintings.  
अजंता गुफा चित्रों के महत्व पर विस्तार से चर्चा कीजिए।

**SAMPLE PAPER– 2026-27(SET–A)**  
**CLASS - XI**  
**SUBJECT – PHYSICAL EDUCATION (048)**

**TIME: 3 HOURS**

**M.M.: 70**

**GENERAL INSTRUCTIONS:**

1. The question paper consists of **5 sections and 34 questions**.
2. **Section A** consists of Questions 1–18 carrying **1 mark each** and are Multiple Choice Questions. All questions are compulsory.
3. **Section B** consists of Questions 19–23 carrying **2 marks each** and are Very Short Answer Type Questions. Answers should not exceed 60–90 words.
4. **Section C** consists of Questions 24–29 carrying **3 marks each** and are Short Answer Type Questions. Answers should not exceed 100–150 words.
5. **Section D** consists of Case Study Based Questions. Each question carries **1 mark**.
6. **Section E** consists of Questions 31–34 carrying **5 marks each** and are Long Answer Type Questions. Answers should not exceed 200–300 words.

**SECTION – A**

**Multiple Choice Questions.**

**(1 × 18 = 18 Marks)**

**Q1. The motto of the Olympic Games is:**

- |                              |                      |
|------------------------------|----------------------|
| (a) Faster, Higher, Stronger | (c) Play and Win     |
| (b) Unity and Peace          | (d) Health is Wealth |

**Q2. IOC stands for:**

- |                                     |                                        |
|-------------------------------------|----------------------------------------|
| (a) Indian Olympic Committee        | (c) International Organisation Council |
| (b) International Olympic Committee | (d) Indian Organising Committee        |

**Q3. The Paralympic Games are organised for:**

- |                     |                                |
|---------------------|--------------------------------|
| (a) Senior citizens | (c) Differently abled athletes |
| (b) Women athletes  | (d) School students            |

**Q4. The headquarters of the IOC is located in:**

- |           |              |
|-----------|--------------|
| (a) Paris | (c) Lausanne |
| (b) Tokyo | (d) London   |

**Q5. BMI is used to measure:**

- |                  |                      |
|------------------|----------------------|
| (a) Speed        | (c) Body composition |
| (b) Intelligence | (d) Flexibility      |

**Q6. Which asana is helpful in reducing obesity?**

- |                  |                 |
|------------------|-----------------|
| (a) Tadasana     | (c) Trikonasana |
| (b) Bhujangasana | (d) Shavasana   |

**Q7. The word “Yoga” is derived from:**

- |         |           |
|---------|-----------|
| (a) Yuj | (c) Yagya |
| (b) Yog | (d) Yug   |

**Q8. Fit India Movement was launched on:**

- |                      |                         |
|----------------------|-------------------------|
| (a) 29th July 2019   | (c) 29th September 2019 |
| (b) 29th August 2019 | (d) 29th June 2019      |

**Q9. What is the aim of Physical Education?**

- |                          |                           |
|--------------------------|---------------------------|
| (a) Physical development | (c) Wholesome development |
| (b) Mental development   | (d) Social development    |

**Q10. Olympic Games were held in ancient Greece in honour of Greek God \_\_\_\_\_.**

- |            |             |
|------------|-------------|
| (a) Zeus   | (c) Uranus  |
| (b) Apollo | (d) Jupiter |

**Q11. Which athlete won maximum number of individual gold medals at a single Olympics?**

- |                    |                 |
|--------------------|-----------------|
| (a) Mark Spitz     | (c) Matt Biondi |
| (b) Michael Phelps | (d) Shane Gould |

**Q12. Which one of the following value is included in Olympism?**

- |                |                  |
|----------------|------------------|
| (a) Friendship | (c) Respect      |
| (b) Excellence | (d) All of these |

**Q13. Which one of the following asana is helpful in managing stress?**

- |                  |                  |
|------------------|------------------|
| (a) Shavasana    | (c) Child Pose   |
| (b) Cat-Cow Pose | (d) All of these |

**Q14. Which one of the following pranayama is used for stress management?**

- |                 |                  |
|-----------------|------------------|
| (a) Sheetli     | (c) Bhramari     |
| (b) Kapalbhathi | (d) All of these |

**Q15. Which one of the following asana is not beneficial for managing stress?**

- |                    |               |
|--------------------|---------------|
| (a) Makarasana     | (c) Shavasana |
| (b) Pawanmuktasana | (d) Balasana  |

**Q16. Which one of the following is a good kriya to get rid of nasal allergy?**

- |                 |            |
|-----------------|------------|
| (a) Kapalbhathi | (c) Dhouti |
| (b) Neti        | (d) Basti  |

**Q17. There are following two statements, which are labelled Assertion (A) & Reason (R)**

**Assertion (A): Adaptive Physical Education is appropriate for differently abled persons.**

**Reason (R): Adaptive Physical Education is a sub-discipline of Physical Education.**

- (a) Both A and R are true and R is the correct explanation of A.  
(b) Both A and R are true, but R is not the correct explanation of A.  
(c) A is true, but R is false.  
(d) A is false, but R is true.

**Q18. Special Olympics are meant for children with:**

- |                             |                              |
|-----------------------------|------------------------------|
| (a) Hearing impairment      | (c) Visual impairment        |
| (b) Intellectual disability | (d) Physical disability only |

## SECTION – B

**Very Short Answer Questions.**

**(2 × 5 = 10 Marks)**

**Q19. Define Physical Education.**

**Q20. Write any two objectives of Yoga.**

**Q21. What do you mean by inclusiveness in sports?**

**Q22. What do you mean by muscular strength?**

**Q23. State any two advantages of women participation in sports.**

## SECTION – C

### Short Answer Questions

(3 × 6 = 18 Marks)

Q24. What is flexibility? Discuss the various types of flexibility.

Q25. Briefly discuss coordinative abilities.

Q26. Write a short note on the Olympic Flag.

Q27. Write a brief note on 'Khelo India' Programme.

Q28. Explain any three causes of disability.

Q29. Explain any three elements of Ashtanga Yoga.

## SECTION – D

### Case Study Based Questions

(1 × 4 = 4 Marks)

Q30. Ramesh had been suffering from stress, tension and anxiety for the last three years. Now, along with these problems, he is also facing severe depression. He has already consulted many doctors but has not found an appropriate solution. Ultimately, he met a yoga instructor. The yoga instructor taught him to perform yogic asanas, pranayamas and yoganidra. After about three months of regular practice, he was feeling well.

Answer the following:

- (i) Yoganidra is performed in \_\_\_\_\_.
- (ii) Yoganidra is known as \_\_\_\_\_ sleep.
- (iii) Yoganidra is helpful in reducing stress and \_\_\_\_\_.
- (iv) Name any three pranayamas used to alleviate stress and tension.

## SECTION – E

### Long Answer Questions.

(5 × 4 = 20 Marks)

Q31. Enumerate the objectives of Physical Education in brief.

Q32. Write a brief note on 'Special Olympic.

Q33. What is First Aid? Discuss its objectives and procedure of PRICE in detail.

Q34. What do you mean by leadership? Discuss the process of creating or making leaders through Physical Education.

**General Instructions**

1. This question paper contains 33 questions.
2. All questions are compulsory.
3. The question paper contains five sections:
  - Section A: Question No. 1 to 12 are objective type questions and Question No. 13 to 16 are Assertion–Reason type questions carrying 1 mark each.
  - Section B: Question No. 17 to 22 are Very Short Answer questions carrying 2 marks each.
  - Section C: Question No. 23 to 28 are Short Answer questions carrying 3 marks each.
  - Section D: Question No. 29 to 30 are Case Study based questions carrying 4 marks each.
  - Section E: Question No. 31 to 33 are Long Answer questions carrying 5 marks each.
4. Use of calculators is not permitted.
5. Draw neat diagrams wherever necessary.

**Section – A**

1. Which of the following is a scalar quantity?
  - (a) Velocity
  - (b) Force
  - (c) Speed
  - (d) Displacement
2. The dimensional formula of momentum is:
  - (a)  $[MLT^{-2}]$
  - (b)  $[ML^2T^{-2}]$
  - (c)  $[MLT^{-1}]$
  - (d)  $[M^0LT^{-1}]$
3. The slope of a velocity-time graph represents:
  - (a) Velocity
  - (b) Acceleration
  - (c) Distance
  - (d) Displacement
4. A body moving with constant velocity has:
  - (a) Constant acceleration
  - (b) Zero acceleration
  - (c) Infinite acceleration
  - (d) Variable acceleration
5. The SI unit of work is:
  - (a) Newton
  - (b) Joule
  - (c) Watt
  - (d) Pascal
6. Newton's first law of motion is also called the law of:
  - (a) Gravitation
  - (b) Inertia

(c) Momentum

(d) Friction

7. **The angle between two perpendicular vectors is:**

(a)  $0^\circ$

(b)  $45^\circ$

(c)  $90^\circ$

(d)  $180^\circ$

8. **Kinetic energy depends upon:**

(a) Mass only

(b) Velocity only

(c) Both mass and velocity

(d) Neither mass nor velocity

9. **The centre of mass of a uniform ring lies at:**

(a) Circumference

(b) Radius

(c) Diameter

(d) Centre of ring

10. **The dimensional formula of angular momentum is:**

(a)  $[ML^2T^{-1}]$

(b)  $[MLT^{-1}]$

(c)  $[ML^2T^{-2}]$

(d)  $[M^0LT^{-1}]$

11. **Two bullets are fired simultaneously horizontally and with different speeds from the same place. Which bullet will hit the ground first?**

(a) The slower one

(b) The faster one

(c) Both will reach simultaneously

(d) Depends on the masses

12. **A ball is dropped from a height of 15 m. It gets embedded in sand by 10 mm and then stops. Which of the following is conserved?**

(a) Temperature

(b) Momentum

(c) Kinetic energy

(d) Both (a) and (c)

For Questions 13 to 16, two statements are given — one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer from the options given below:

(a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.

(b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

(c) Assertion is true but Reason is false.

(d) Both Assertion and Reason are false.

13. **Assertion (A):** Friction always opposes motion.

**Reason (R):** Friction acts parallel to the surfaces in contact.

14. **Assertion (A):** Work done by centripetal force is zero.

**Reason (R):** Centripetal force acts perpendicular to displacement.

15. **Assertion (A):** If dot product and cross product of vectors A and B are zero, then one of the vectors A or B must be a null vector.

**Reason (R):** Null vector is a vector with zero magnitude.

**16. Assertion (A):** When we change the unit of measurement of a quantity, its numerical value changes.

**Reason (R):** Smaller the unit of measurement, smaller is its numerical value.

### Section – B

17. Define accuracy and precision.

18. A car moves with a velocity of 20 m/s and comes to rest in 5 s. Find its acceleration.

19. State Newton's second law of motion.

20. Define work done. Write its SI unit.

21. Differentiate between scalar and vector quantities with one example each.

22. Define radius of gyration.

### Section – C

23. Derive the relation between linear velocity and angular velocity.

24. A body starts from rest and moves with uniform acceleration of  $4 \text{ m/s}^2$  for 5 s. Calculate:

(i) Final velocity

(ii) Distance travelled

**OR**

A train accelerates uniformly from 10 m/s to 30 m/s in 5 s. Find acceleration and distance travelled.

25. Explain the parallelogram law of vector addition with a diagram.

26. State and prove the work-energy theorem.

**OR**

The frequency of vibration of a string depends on:

(i) Tension in the string

(ii) Mass per unit length of the string

(iii) Vibrating length of the string

Establish dimensionally the relation for frequency.

27. A force of 10 N acts on a body of mass 2 kg initially at rest. Find:

(i) Acceleration produced

(ii) Velocity after 5 s

28. Define moment of inertia. Write any two factors affecting it.

### Section – D

#### 29. Case Study:

A car starts from rest and moves with uniform acceleration of  $2 \text{ m/s}^2$  for 10 seconds in a straight line.

Answer the following questions:

(i) What is the final velocity of the car? (1)

(ii) How much distance does the car travel in 10 s? (1)

(iii) Which equation of motion is used to calculate final velocity? (1)

(iv) Draw the nature of the velocity-time graph for this motion. (1)

#### 30. Case Study:

A student observes a spinning wheel rotating about its fixed axis. The wheel gradually slows down due to friction.

Answer the following questions:

(i) Which physical quantity is responsible for rotational motion? (1)

(ii) What is the SI unit of torque? (1)

(iii) Why does the wheel stop after some time? (1)

(iv) Define moment of inertia. (1)

### Section – E

**31.** Derive the three equations of motion graphically using the velocity-time graph.

**32.** Explain conservation of mechanical energy.

A body of mass 2 kg falls from a height of 20 m. Calculate:

(i) Potential energy at the top

(ii) Kinetic energy just before hitting the ground

(Take  $g = 10 \text{ m/s}^2$ )

**OR**

(i) Derive an equation for the distance covered by a uniformly accelerated body in the  $n$ th second of its motion.

(ii) A body covers 12 m in 2 seconds and 20 m in 4 seconds. How much distance will it cover in 4 seconds after the 5th second?

**33.** (a) Define centre of mass.

(b) Obtain the expression for torque.

(c) State the conditions of equilibrium of a rigid body.

**General Instructions:**

- All questions are compulsory.
- The question paper comprises 36 questions divided into five sections A, B, C, D and E.
- Marks are indicated against each question.
- Answers should be written in clear and concise language.

**Section A**

**Multiple Choice Questions**

**(1 × 20 = 20 Marks)**

**Q1. Political Theory mainly deals with:**

- a) Natural resources
- b) Political ideas and concepts
- c) Economic planning
- d) Scientific inventions

**Q2. Which one of the following is a negative aspect of freedom?**

- a) Freedom of expression
- b) Freedom from external constraints
- c) Freedom to exploit others
- d) Freedom of association

**Q3. Equality means:**

- a) Equal income for all
- b) Equal opportunities and dignity
- c) No differences among people
- d) Equal occupation for all

**Q4. Who described justice as fairness?**

- a) Aristotle
- b) Karl Marx
- c) John Rawls
- d) Rousseau

**Q5. A Constitution is necessary because it:**

- a) Creates political parties
- b) Limits governmental powers
- c) Ends elections
- d) Eliminates laws

**Q6. Which Constituent Assembly Committee was headed by Dr. B.R. Ambedkar?**

- a) Union Constitution Committee
- b) Drafting Committee
- c) Steering Committee
- d) Advisory Committee

**Q7. Right to Equality is provided under:**

- a) Articles 14–18
- b) Articles 19–22
- c) Articles 25–28
- d) Articles 32–35

**Q8. Which Fundamental Right was removed from the list of Fundamental Rights?**

- a) Right to Freedom
- b) Right to Equality
- c) Right to Property
- d) Right against Exploitation

**Q9. Universal Adult Franchise means:**

- a) Voting rights only for educated citizens
- b) Voting rights for all adults without discrimination
- c) Voting rights for taxpayers only
- d) Voting rights for government employees

**Q10. India follows:**

- a) Proportional Representation System
- b) First-Past-The-Post System
- c) Dictatorial System
- d) Nomination System

**Q11. The Election Commission of India is:**

- a) A private institution
- b) An independent constitutional body
- c) A judicial body
- d) A political party

**Q12. The Lok Sabha is also known as:**

- a) Upper House
- b) House of States
- c) Lower House
- d) Federal House

**Q13. The maximum strength of Lok Sabha is:**

- a) 552
- b) 250
- c) 545
- d) 500

**Q14. The Rajya Sabha is:**

- a) A temporary house
- b) A permanent house
- c) A nominated body only
- d) A judicial body

**Q15. The real executive in India is:**

- a) President
- b) Prime Minister and Council of Ministers
- c) Governor
- d) Chief Justice

**Q16. The President of India is elected by:**

- a) Citizens directly
- b) Members of Parliament only
- c) Electoral College
- d) Governors

**Q17. Judicial Review refers to:**

- a) Review of elections
- b) Power of courts to examine constitutional validity of laws

- c) Review of Parliament proceedings
- d) Review of government expenditure

**Q18. The highest court in India is:**

- a) High Court
- b) District Court
- c) Supreme Court
- d) Sessions Court

**Q19. Which organ of government interprets laws?**

- a) Legislature
- b) Executive
- c) Judiciary
- d) Election Commission

**Q20. Separation of powers helps in:**

- a) Concentration of authority
- b) Dictatorship
- c) Checks and balances
- d) Political instability

### Section B

**Very Short Answer Questions**

**(2 × 5 = 10 Marks)**

**Q21. Mention the objectives of Political Theory.**

**Q22. State any two dimensions of equality.**

**Q23. Why are Fundamental Rights important in a democracy?**

**Q24. What is Universal Adult Franchise?**

**Q25. Mention any two functions of the Legislature.**

### Section C

**Short Answer Questions**

**(4 × 5 = 20 Marks)**

**Q26. Explain the concept of freedom. Discuss any two safeguards necessary for ensuring freedom.**

**OR**

Differentiate between positive liberty and negative liberty.

**Q27. Explain any four features of the Indian Constitution.**

**OR**

Why did India need a written Constitution? Explain.

**Q28. Describe the role and functions of the Election Commission of India.**

**OR**

Discuss the merits and limitations of the First-Past-The-Post System.

**Q29. Explain the composition and powers of the Rajya Sabha.**

**OR**

Differentiate between Lok Sabha and Rajya Sabha.

**Q30. Explain any four powers and functions of the Prime Minister of India.**

**OR**

Discuss the relationship between the President and the Council of Ministers.

## Section D

### Long Answer Questions

(6 × 3 = 18 Marks)

**Q31. Explain the significance of equality in democratic societies. Discuss various forms of equality.**

**OR**

“Freedom and equality are complementary to each other.” Explain.

**Q32. Discuss the Fundamental Rights guaranteed by the Indian Constitution. How do they protect citizens?**

**OR**

Explain the Right to Constitutional Remedies and its importance.

**Q33. Examine the role of the Judiciary in protecting democracy and the Constitution in India.**

**OR**

Explain Judicial Review and Judicial Activism with suitable examples.

## Section E

### Case/Source Based Questions

(4 × 3 = 12 Marks)

**Q34. Read the passage carefully and answer the questions:**

“The Constitution establishes a framework of government, guarantees rights to citizens and ensures that power is not concentrated in the hands of a few. It also reflects the aspirations and values of society.”

- (i) Why is a Constitution necessary for a country? (1)
- (ii) Mention any two functions of a Constitution. (2)
- (iii) How does a Constitution prevent misuse of power? (1)

**Q35. Read the passage carefully and answer the questions:**

“Free and fair elections are essential for democratic governance. Citizens elect their representatives who are accountable to them. Elections ensure participation and legitimacy of government.”

- (i) What is meant by free and fair elections? (1)
- (ii) State any two functions of elections in a democracy. (2)
- (iii) Why is accountability important in representative democracy? (1)

**Q36. Read the passage carefully and answer the questions:**

“An independent judiciary acts as the guardian of the Constitution. It resolves disputes, protects rights and ensures that laws conform to constitutional principles.”

- (i) Why is judicial independence important? (1)
- (ii) Mention any two functions of the judiciary. (2)
- (iii) What is meant by Judicial Review? (1)

**GENERAL INSTRUCTIONS:**

1. All questions are compulsory.
2. Read the questions carefully before answering.
3. Internal choices are provided wherever necessary.
4. Marks are indicated against each question.

**SECTION – A**

**OBJECTIVE TYPE QUESTIONS (1 × 16 = 16 Marks)**

**Q1. Choose the correct answer:**

1. Sociology is the study of:  
(a) Nature (b) Society (c) Economy (d) Politics
2. Who is known as the Father of Sociology?  
(a) Karl Marx (b) Auguste Comte (c) Durkheim (d) Weber
3. Society is a network of:  
(a) Social relationships (b) Roads (c) Industries (d) Markets
4. Which of the following is an achieved status?  
(a) Daughter (b) Son (c) Doctor (d) Sister
5. Family is a:  
(a) Social institution (b) Political institution  
(c) Economic institution (d) Religious institution
6. Marriage is associated with:  
(a) Family (b) Market (c) School (d) State
7. Socialisation refers to:  
(a) Learning social behaviour (b) Travelling  
(c) Voting (d) Migration
8. The first agency of socialisation is:  
(a) School (b) Family (c) Media (d) Peer Group
9. Culture includes:  
(a) Values and beliefs (b) Buildings only  
(c) Roads only (d) Machines only
10. Primary groups are characterized by:  
(a) Close relationships (b) Formal relationships  
(c) Temporary relations (d) Official relations
11. Social control helps maintain:  
(a) Social order (b) Population (c) Migration (d) Trade

**12.** Peer groups mainly influence:

- (a) Behaviour                      (b) Climate                      (c) Agriculture                      (d) Transport

**13.** Norms are:

- (a) Rules of behaviour                      (b) Laws only                      (c) Emotions                      (d) Traditions only

**14.** Reference group refers to:

- (a) A group influencing behaviour                      (b) Family only  
(c) School only                      (d) Neighbours only

**15.** Culture is:

- (a) Learned                      (b) Biological                      (c) Fixed                      (d) Natural

**16.** Values help in:

- (a) Guiding behaviour                      (b) Increasing population  
(c) Trade                      (d) Migration

### **SECTION – B**

#### **VERY SHORT ANSWER QUESTIONS (2 × 7 = 14 Marks)**

**17.** Define Sociology.

**18.** What is society?

**19.** What is social status?

**20.** Define social role.

**21.** What is socialisation?

**22.** Define culture.

**23.** What is a social institution?

### **SECTION – C**

#### **SHORT ANSWER QUESTIONS (4 × 5 = 20 Marks)**

**24.** Explain any four characteristics of Sociology.

**25.** Differentiate between ascribed status and achieved status.

**26.** Explain any four functions of family.

**27.** Describe the role of school and peer group in socialisation.

**28.** Explain any four characteristics of culture.

### **SECTION – D LONG ANSWER QUESTIONS (6 × 3 = 18 Marks)**

**29.** Explain the relationship between individual and society.

**OR**

Discuss the sociological perspective with suitable examples.

**30.** Explain the meaning and importance of social institutions.

**OR**

Discuss the functions of family, marriage and education.

31. Explain the process of socialisation and its significance.

**OR**

Explain the role of culture in shaping human behaviour.

**SECTION – E ASSERTION – REASON QUESTIONS (1 × 6 = 6 Marks)**

**Choose the correct option:**

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.

32. **Assertion:** Family is the primary agency of socialisation.

**Reason:** Family teaches values and norms.

33. **Assertion:** Culture influences human behaviour.

**Reason:** Culture is learned through social interaction.

34. **Assertion:** Social institutions help maintain social order.

**Reason:** Institutions fulfil important social needs.

35. **Assertion:** Every social status has a role attached to it.

**Reason:** Roles define expected behaviour.

36. **Assertion:** Sociology studies society scientifically.

**Reason:** Sociology depends only on personal opinions.

37. **Assertion:** Peer groups influence the behaviour of adolescents.

**Reason:** Friends play an important role in social development.

**SECTION – F**

**CASE BASED QUESTIONS (3 × 2 = 6 Marks)**

38. Read the passage carefully:

Rohan learns language, customs, values and manners from his family. In school he learns discipline, cooperation and responsibility.

Answer the following:

- (a) Name the process described in the passage. (1)
- (b) Identify any two agencies involved in this process. (2)

39. Read the passage carefully:

Different communities follow different customs, traditions, beliefs and lifestyles. These practices help individuals develop identity and a sense of belonging.

Answer the following:

- (a) Which sociological concept is highlighted in the passage? (1)
- (b) Mention any two characteristics of this concept. (2)