



MODEL TEST PAPER BIOLOGY

Class 11 - Biology

Time Allowed: 3 hours

Maximum Marks: 70

General Instructions:

1. All Questions are compulsory.
2. The Question paper has five section and 33 question. All Questions are compulsory.
3. Section A has 16 Questions of 1 marks, Section B has 5 questions of 2 marks each, Section C has 7 questions of 3 marks each, and section D has 2 case based questions of 4 marks each, and Section E has 3 questions of 5 marks each.
4. There is no overall choice. However, internal choices have been provided in some questions.

(Section-A)

1. Human beings are grouped in which Order? [1]
a) Homo
b) Primata
c) Sapiens
d) Hominidae
2. Which of the following is called red alga? [1]
a) Rhodophyceae
b) Phaeophyceae
c) Chlorophyceae
d) All of these
3. What is the role of the guard cells? [1]
a) Controls opening and closing of stomata
b) Prevents dust from entering leaves
c) All of these
d) Protects stomatal opening
4. The vascular cambium normally gives rise to: [1]
a) Primary phloem
b) Periderm
c) Phelloderm
d) Secondary xylem
5. Which of the following statements, regarding respiration of frog is correct? [1]
a) In water - Skin, Buccal cavity
b) On land - Skin, Lungs, Gills
c) In water -Skin,Gills
d) On land - Skin, Buccal cavity
6. Which of the following structures is not found in prokaryotic cells? [1]
a) Mesosome
b) Plasma membrane
c) Ribosome
d) Nuclear envelope

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.

16. **Assertion (A):** When stamens are attached to the petals, they are epipetalous as in brinjal. [1]

Reason (R): Epiphyllous when attached to the perianth as in the flowers of pea.

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.

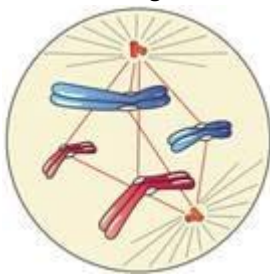
c) A is true but R is false. d) A is false but R is true.

(Section-B)

17. How do mosses prevent soil erosion? [2]

18. How are open Vascular bundles differ from closed vascular bundles? [2]

19. Label the diagram and also determine the stage at which this structure is visible. [2]



20. When will the value of RQ will be less than 1? [2]

21. List any four ways how the application of auxins can be found useful. [2]

OR

In areas witnessing heavy flood which plant regulator should be used for better yield of rice. Give reasons.

(Section-C)

22. The two kingdom classification system placed bacteria, algae, blue-green algae, fungi, mosses, ferns, gymnosperm, and angiosperms, together under one single kingdoms-Plantae. According to you, what could have been the basis of such classification? [3]

23. Give general characters of Phylum Arthropoda. [3]

24. Explain the functions of Chloroplast cell organelles. [3]

25. Write brief note on the following [3] i. Synaptonemal complex
ii. Metaphase plate

26. Write some common steps to C₃ and C₄ photosynthesis? Explain in brief. [3]

OR

Comment on the statement: Life cannot be sustained if all the green plants are removed from the earth.

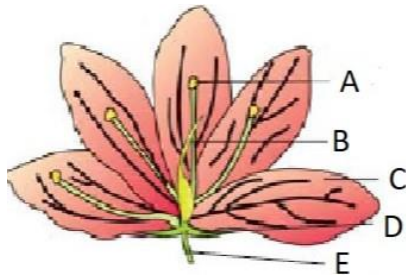
27. Give a brief account of light reaction. [3]

28. Write short note on forebrain. [3]

(Section-D)

29 . Read the text carefully and answer the questions: 4.0

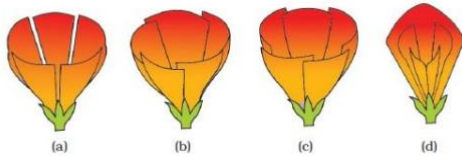
Each flower normally has four floral whorls, viz., calyx, corolla, androecium and gynoecium. The calyx is the outermost whorl of the flower and the members are called sepals. Corolla is composed of petals. Petals are usually brightly coloured to attract insects for pollination. The mode of arrangement of sepals or petals in floral bud with respect to the other members of the same whorl is known as aestivation. The main types of aestivation are valvate, twisted, imbricate. The shape and colour of corolla vary greatly in plants. Corolla may be tubular, bell- shaped, funnelshaped or wheel-shaped and vexillary.



1. Observe the given figure mentioned A, B, C and D. Also mention its function.
2. Identify D and mention its example.

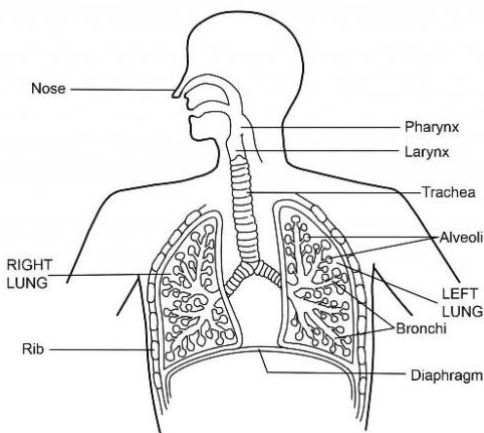
Ganosepalous, Ganopetalous, Polysepalous, Polypetalous, Imbricate

3. What is Valvate and twisted aestivation?
4. Which of the following shows imbricate? Explain imbricate aestivation?



30. Read the text carefully and answer the questions: 4.0

The respiratory system in human beings constitutes the following organs- nose, nasal passage, trachea, bronchi, lungs and diaphragm. Human beings have a pair of external nostrils opening out above the upper lips which leads to a nasal chamber through the nasal passage. During the breathing cycle, when air is taken in and let out, the lungs always contain a residual volume of air so that there is sufficient time for oxygen to be absorbed and for the carbon dioxide to be released.



1. Observe the image and mention conclusions for the image shown.
2. Which cartilaginous box helps in sound production?
3. What is Epiglottis?
4. The nasal chamber opens into which portion of the pharynx?

(Section-E)

31. Distinguish between gymnosperms and angiosperms. [5]

OR

Give a comparative account of Gymnosperms and Angiosperms.

32. What is the difference between a nucleotide and nucleoside? Give two examples of each with their structure. [5]

OR

Find out how much cellulose is made by all the plants in the biosphere and compare it with how much of paper is manufactured by man and hence what is the consumption of plant material by man annually. What is loss of vegetation?

33. Describe briefly the internal structure of human heart with neat and labelled diagram. [5]

OR

What physiological circumstances lead to erythroblastosis foetalis?

- a) n-butane
b) n-Pentane
c) 2-Methylebutane
d) 2,2-Dimethylpropane

[1]

15. **Assertion (A):** A catalyst does not influence the value of the equilibrium constant. [1]

Reason(R): Catalyst influence the rate of both forward and backward reactions equally.

- 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.

16. **Assertion (A):** Electronegativity generally increases across a period from left to right from lithium to fluorine.

Reason (R): Electron gain enthalpy is a measurable quantity.

- 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.

17. **Assertion (A):** $\text{CH}_3 - \text{CH} = \text{CH} - \text{CH}_3$ is more stable than $\text{CH}_3 - \text{CH} = \text{CH}_2$. [1]

Reason (R): As the number of α -H increases stability of alkenes increases.

- 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.

18. **Assertion (A):** When strips of metallic zinc are placed in an aqueous solution of copper nitrate blue colour of the solution remains the same. [1]

Reason (R): The formation of Zn^{2+} ions among the products can easily be judged when the blue colour of the solution due to Cu^{2+} has disappeared.

- 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. Round up the following upto three significant figures: [2]

- (i) 34.216 (ii) 10.4107 (iii) 0.04597 (iv) 2808

20. Which of the following are iso-electronic species? [2]

Na^+ , K^+ , Mg^{2+} , Ca^{2+} , S^{2-} , Ar

21. What do you understand by 'Representative elements'? Name the groups whose elements are called representative elements. [2]

22. Why is B_2 molecule paramagnetic. [2]

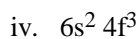
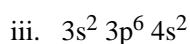
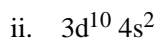
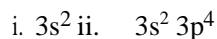
23. Why is the difference between ΔH and ΔU not significant for solids or liquids? [2]

OR

Explain how is enthalpy related to spontaneity of a reaction.

24. Write structures of various carbocations that can be obtained from 2-methylbutane. Arrange these carbocations in order of increasing stability.

25. The outer electronic configurations of some elements are:

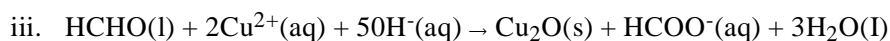
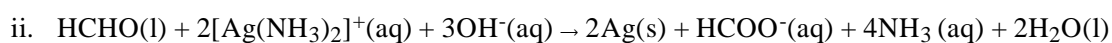


[3]

[3]

State to which block in the periodic table each of these elements belong.

26. Identify the substances oxidised reduced oxidizing agent and reducing the agent for each of the following reactions: [3]



27. A flask P contains 0.5 mole of oxygen gas. Another flask Q contains 0.4 mole of ozone gas. Which of the two flasks contains greater number of oxygen atoms?

28. An average healthy man needs about 10000 kJ of energy per day. How much carbohydrates (in mass) he will have to consume assuming that all these energy needs are met only by carbohydrates in the form of glucose? The enthalpy of combustion of glucose is 2816 kJ mol^{-1} .

29. Point out the difference between ionic product and solubility product. [3]

OR

A liquid is in equilibrium with its vapours in a sealed container at a fixed temperature. The volume of the container is suddenly increased.

- What is the initial effect of the change on the vapour pressure?
- How do the rates of evaporation and condensation change initially?
- What happens when equilibrium is restored finally and what will be the final vapour pressure?

30. What are the necessary conditions for any system to be aromatic? [3]

31. Read the passage and answer the following questions: [4]

A large number of orbitals are possible in an atom. Qualitatively these orbitals can be distinguished by their size, shape and orientation. An orbital of smaller size means there is more chance of finding the electron near the nucleus. Similarly, shape and orientation mean that there is more probability of finding the electron along with certain directions than along others. The principal quantum number determines the size and to large extent the energy of the orbital. Azimuthal quantum number, 'l' is also known as orbital angular momentum or subsidiary quantum number. It defines the three-dimensional shape of the orbital. Each shell consists of one or more subshells or sub-levels. The number of sub-shells in a principal shell is equal to the value of n. Magnetic orbital quantum number. 'ml' gives information about the spatial orientation of the orbital with respect to a standard set of co-ordinate axis. The fourth quantum number is known as the electron spin quantum number (m_s). An electron spins around its own axis, much in a similar way as the earth spins around its own axis while revolving around the sun.

In these questions, a statement of assertion followed by the statement of reason is given. Choose the correct answer out of the following choices:

- Assertion and reason both are correct statements and reason is the correct explanation for assertion.
- Assertion and reason both are correct statements and reason is not the correct explanation for assertion.
- Assertion is the correct statement but reason is wrong statement.
- Assertion is the wrong statement but reason is correct statement.

i. **Assertion:** Each orbital is designated by three quantum numbers labelled as n, l and m_l .

Reason: 'n' is a positive integer with value of n = 1,2,3.

ii. **Assertion:** The principal quantum number identifies the shell.

Reason: Size of an orbital decrease with the increase of principal quantum number 'n'.

iii. **Assertion:** For n = 2, the possible value of l can be 0 and 1.

Reason: For a given value of n, l can have n values ranging from 0 to n – 1.

iv. **Assertion:** Each orbital in an atom, is defined by a set of values for n, l and m_l .

Reason: m_l designates the orientation of the orbital.

OR

Assertion: Spin quantum numbers m_s can take the values of $+\frac{1}{2}$ or $-\frac{1}{2}$.

Reason: Two spin states of the electron and are normally represented by two arrows, \uparrow (spin down) and \downarrow (spin up).

Question No. 32 to 36 are based on the given text. Read the text carefully and answer the questions: 5.0

The enthalpy change occurring during a reaction when all the involved substances are in their standard states, is called the **standard enthalpy of the reaction**.

The purest and most stable form of a substance at 1 bar and at a specified temperature is called **its standard state**. e.g. The standard state of solid iron at 500 K is pure iron at 1 bar. The standard enthalpy change is represented by writing the superscript \ominus to the symbol ΔH , i.e. by ΔH^\ominus .

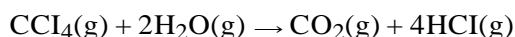
32. In some reactions heat is evolved when

- a) None of these
b) $H_R > H_P$
c) $H_R = H_P$
d) $H_P > H_R$

33. The standard enthalpy of formation of diamond is not zero because

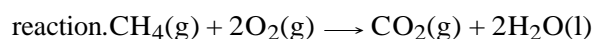
- b) None of these
b) it is hard
c) standard state is graphite
d) standard state is diamond

34. The standard heat of formation at 298 K for $\text{CCl}_4(\text{g})$, $\text{H}_2\text{O}(\text{g})$, $\text{CO}_2(\text{g})$ and $\text{HCl}(\text{g})$ are -25.5, -57.8, -94.1 and -22.1 kcal mol^{-1} respectively. Calculate $\Delta_r H^\circ$ for the reaction.



- c) -41.4 kcal
b) -82.8 kcal
c) 82.8 kcal
d) 41.4 kcal

35. Calculate the enthalpy change for the following



given enthalpies of formation of CH_4 , CO_2 and H_2O are $-74.8 \text{ kJ mol}^{-1}$, $-393.5 \text{ kJ mol}^{-1}$ and $-286.2 \text{ kJ mol}^{-1}$ respectively.

- a) 891.1 kJ
b) 400 J
c) 891.1 J
d) 400 kJ

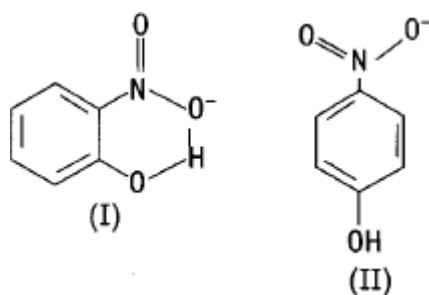
36. The heat of combustion of carbon to CO_2 is -393.5 kJ/mol . The heat released upon the formation of 35.2 g of CO_2

From carbon and oxygen gas is

- a) -315 kJ
b) -630 kJ
c) -3.15 kJ
d) +315 kJ

37. Structures of molecules of two compounds are given below.

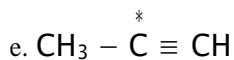
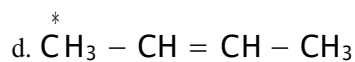
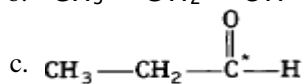
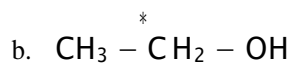
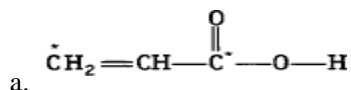
[5]



- Which of the two compounds will have intermolecular hydrogen bonding and which compound is expected to show intramolecular hydrogen bonding?
- The melting point of a compound depends on among other things, the extent of hydrogen bonding. On this basis, explain which of the above two compounds will show higher melting point?
- The solubility of compounds in water depends on the power to form hydrogen bonds with water. Which of the above compounds will form a hydrogen bond with water easily and be more soluble in it?

OR

What is the type of hybridisation of carbon atoms marked with a star?



38. i. How will you distinguish 1-pentene from n-pentane? [5]
 ii. An alkene on ozonolysis gives 2-butanone and 2-methyl propanal. What products will be obtained when it is treated with hot conc. KMnO_4 ?

OR

- a) Why is Wurtz reaction not preferred for the preparation of alkanes containing odd number of carbon atoms? Illustrate your answer by taking one example.
 b) Give the mechanism for the preparation of alkane by Decarboxylation (Kolbe's electrolysis)

39. Draw the structures of [5]

- i. 2-chlorohexane,
- ii. pent-4-en-2-ol,
- iii. 3-nitrocyclohexene,
- iv. cyclohex-2-en-1-ol,
- v. 6-hydroxy-heptanal.

OR

Explain the terms inductive and electromeric effects. Which electron displacement effect explains the following correct orders of acidity of the carboxylic acids?

- i. $\text{Cl}_3\text{CCOOH} > \text{Cl}_2\text{CHOOH} > \text{ClCH}_2\text{COOH}$
- ii. $\text{CH}_3\text{CH}_2\text{COOH} > (\text{CH}_3)_2\text{CHOOH} > (\text{CH}_3)_3\text{C} \cdot \text{COOH}$



SAMPLE PAPER

Class 11 - Mathematics

Time Allowed: 3 hours

Maximum Marks: 80

General Instructions:

1 This question paper contains five sections A,B,C,D and E.Each section is compulsory However there arw internal choice in some questions.

2 Section A has MCQ's and 02 assertion - Reason based questions of 1mark each.

3 Section B has 5 Short answer type questions of 2 marks each.

4 Section C has 6 Short answer type questions of 3 marks each.

5 Section D has 4 long answer type questions of 5 marks each.

6 Section E has 3 source based/ Passage based 4 marks each.

1. In a class of 55 students, the number of students studying different subjects are 23 in Mathematics, 24 in Physics, 19 in Chemistry, 12 in Mathematics and Physics, 9 in Mathematics and Chemistry, 7 in Physics and Chemistry and 4 in all the three subjects. The number of students who have taken exactly one subject is [1]
 - a) 9
 - b) 6
 - c) 7
 - d) All of these
2. The domain of function f defined as $\frac{1}{\sqrt{(x-4)(x-5)}}$ is [1]
 - a) $(-\infty, 4) \cup (5, \infty)$
 - b) $(-\infty, 4] \cup [5, \infty)$
 - c) $(-\infty, 4) \cup [5, \infty)$
 - d) $(-\infty, 4] \cup (5, \infty)$
3. If in a $\triangle ABC$, $\tan A + \tan B + \tan C = 6$, then $\cot A \cot B \cot C =$ [1]
 - a) None of these
 - b) 6
 - c) $\frac{1}{6}$
 - d) 1
4. The value of $\frac{2(\sin 2x+2 \cos^2 x-1)}{\cos x-\sin x-\cos 3x+\sin 3x}$ is [1]
 - a) $\sin x$
 - b) $\cos x$
 - c) $\operatorname{cosec} x$
 - d) $\sec x$
5. If $z = \frac{1}{1-\cos \theta-i \sin \theta}$, then $\operatorname{Re}(z) =$ [1]
 - a) 0
 - b) $\frac{1}{2}$
 - c) $\cot \frac{\theta}{2}$
 - d) $\frac{1}{2} \cot \frac{\theta}{2}$
6. Solve the system of inequalities $4x + 3 \geq 2x + 17$, $3x - 5 < -2$, for the values of x, then [1]
 - a) no solution
 - b) $(-\frac{3}{2}, \frac{2}{5})$

- c) $(-4, 12)$ d) $(-2, 2)$
7. A five digits number divisible by 3 is to be formed using the numbers 0, 1, 2, 3, 4 and 5, without repetition. The total number of ways this can be done, is [1]
- a) 3125 b) 600
c) 216 d) 240
8. The sum of the rational terms in the binomial expansion of $(2^{\frac{1}{2}} + 3^{\frac{1}{5}})^{10}$ is: [1]
- a) 32 b) 41
c) 9 d) 25
9. If the sum of n terms of a GP is $(2^n - 1)$ then its common ratio is [1]
- a) $\frac{-1}{2}$ b) $\frac{1}{2}$
c) 2 d) 3
10. If $x = 1 + a + a^2 + \dots \infty$ and $y = 1 + b + b^2 + \dots \infty$, where $|a| < 1$ and $|b| < 1$ then $(1 + ab + a^2b^2 + \dots \infty) = ?$ [1]
- a) $\frac{xy}{x+y+1}$ b) $\frac{x+y}{xy}$
c) $\frac{xy}{x+y-1}$ d) $\frac{xy}{x+y}$
11. The lines $x + (k - 1)y + 1 = 0$ and $2x + k^2y - 1 = 0$ are at right angles if [1]
- a) $k > 1$ b) $k = 1$
c) $k = -1$ d) none of these
12. The length of the latus rectum of the ellipse $5x^2 + 9y^2 = 45$ is [1]
- a) $\frac{\sqrt{5}}{2}$ b) $\frac{5}{3}$
c) $\frac{10}{3}$ d) $\frac{\sqrt{5}}{4}$
13. The points on the parabola $y^2 = 36x$ whose ordinate is three times the abscissa are [1]
- a) $(0, 0), (4, 12)$ b) None of these
c) $(1, 3), (4, 12)$ d) $(4, 12)$ only
14. The distance of a point $P(a, b, c)$ from x-axis is [1]
- a) $b^2 + c^2$ b) $\sqrt{a^2 + b^2}$
c) $\sqrt{b^2 + c^2}$ d) $\sqrt{a^2 + c^2}$
15. $\lim_{x \rightarrow \frac{\pi}{4}} \frac{\sec^2 x - 2}{\tan x - 1}$ is equal to [1]
- a) 1 b) 0
c) 2 d) 3
16. If $f(x) = x \sin x$, then $f'(\frac{\pi}{2})$ is equal to [1]
- a) 1 b) $\frac{1}{2}$
c) -1 d) 0
17. For the data 3, 5, 1, 6, 5, 9, 5, 2, 8, 6, the mean, median and mode are x, y and z, respectively. Which one of the [1]

following is correct?

a) $x = y \neq z$

b) $x \neq y = z$

c) $x = y = z$

d) $x \neq y \neq z$

18. If $P(A \cup B) = 0.8$ and $P(A \cap B) = 0.3$, then $P(\bar{A}) + P(\bar{B}) =$ [1]

a) 0.7

b) 0.9

c) 0.5

d) 0.3

19. **Assertion (A):** The value of $\sin(-690^\circ) \cos(-300^\circ) + \cos(-750^\circ) \sin(-240^\circ) = 1$. [1]

Reason (R): The values of sin and cos is negative in third and fourth quadrant respectively.

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.

20. **Assertion (A):** The sum of first 6 terms of the GP 4, 16, 64, ... is equal to 5460. [1]

Reason (R): Sum of first n terms of the G.P is given by $S_n = \frac{a(r^n - 1)}{r - 1}$, where a = first term r = common ratio and $|r| > 1$.

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.

21. There are 200 individual with a skin disorder, 120 has been exposed to chemical C_1 , 50 to chemical C_2 and 30 to both the chemicals C_1 and C_2 . Find the number of individual exposed to chemical C_2 but not chemical C_1 . [2]

22. Let $A = \{2, 3, 4, 5\}$ and $B = \{3, 6, 7, 10\}$. Let $R = \{(x, y) : x \in A, y \in B \text{ and } x \text{ is relatively prime to } y\}$ [2]

i. Write R in roster form.

ii. Find dom (R) and range (R)

23. Find the length of an arc of a circle of radius 3 cm, if the angle subtended at the centre is 30° . ($\pi = 3.14$) [2]

OR

If x and y are acute angles such that $\cos x = \frac{13}{14}$ and $\cos y = \frac{1}{7}$, find $\cos(x - y)$. (Decimal value)

24. Using binomial theorem, find the value $(99)^4$. [2]

25. Evaluate $\lim_{x \rightarrow 0} \frac{\sin x - 2 \sin 3x + \sin 5x}{x}$. [2]

26. Let $f = \{(1, 1), (2, 3), (0, -1), (-1, -3)\}$ be a function from Z to Z defined by $f(x) = ax + b$ for some integers a, b. Determine a, b. [3]

27. Evaluate: $\sqrt{-15 - 8i}$. [3]

28. Solve the inequality and show the graph for the solution on number line: $\frac{x}{2} \geq \frac{(5x-2)}{3} - \frac{(7x-3)}{5}$ [3]

29. Find the 6th term from the end of the GP 8, 4, 2, ..., $\frac{1}{1024}$. [3]

OR

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

30. Find the point in yz-plane which is equidistant from the points A(3, 2, -1), B(1, -1, 0) and C(2, 1, 2). [3]

31. If $f(x) = \begin{cases} \frac{k \cos x}{\pi - 2x}, & \text{when } x \neq \frac{\pi}{2} \\ \lim_{x \rightarrow \frac{\pi}{2}} f(x) = 3 \end{cases}$ [3]

Find the value of k.

32. If $\cos x = -\frac{3}{5}$ and x lies in the IIIrd quadrant, find the values of $\cos\frac{x}{2}$, $\sin\frac{x}{2}$ and $\sin 2x$. [5]

33. Let z be a complex number such that $z \neq 1$ and $|z| = 1$. Then, prove that $\left(\frac{z-1}{z+1}\right)$ is purely imaginary. What will be your conclusion when $z = 1$? [5]

OR

If $x - iy = \sqrt{\frac{a-ib}{c-id}}$, then prove that $x^2 + y^2 = \sqrt{\frac{a^2+b^2}{c^2+d^2}}$.

34. In the $\triangle ABC$ with vertices $A(2, 3)$, $B(4, -1)$ and $C(1, 2)$, find the equation and length of altitude from the vertex A. [5]

35. Find the mean deviation about the median for the data: [5]

Class	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60
Frequency	6	8	11	18	5	2

OR

Find the mean and standard deviation for the following data:

Class interval	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Frequency	3	2	4	6	5	5	5	2	8	5

36. An item is manufactured by three machines A, B and C. Out of the total number of items manufactured during a specified period, 50% are manufactured on A, 30% on B and 20% on C. 2% of the items produced on A and 2% of items produced on B are defective, and 3% of these produced on C are defective. All the items are stored at one godown. [4]



i. One item is drawn at random and is found to be defective. What is the probability that it was manufactured on machine A?

- a. $\frac{3}{11}$
- b. $\frac{2}{11}$
- c. $\frac{5}{11}$
- d. $\frac{11}{3}$

ii. One item is drawn at random and is found to be defective. What is the probability that it was manufactured on machine B?

- a. $\frac{3}{11}$
- b. $\frac{2}{11}$
- c. $\frac{5}{11}$
- d. $\frac{4}{11}$

iii. One item is drawn at random and is found to be defective. What is the probability that it was manufactured on machine C?

- a. $\frac{11}{3}$
- b. $\frac{3}{11}$
- c. $\frac{3}{5}$
- d. $\frac{5}{11}$

- iv. If two events are independent then
- they must be mutually exclusive
 - the sum of their probabilities must be equal to 1
 - both (a) and (b) is correct
 - none of the above is correct
- v. If A and B are such events that $P(A) > 0$ and $P(B) \neq 1$ then $P(A'/B')$ equals to
- $1 - P\left(\frac{A}{B}\right)$
 - $1 - P\left(\frac{A'}{B}\right)$
 - $\frac{1 - P(A \cup B)}{P(B')}$
 - $\frac{P(A')}{P(B')}$

Question No. 37 to 40 are based on the given text. Read the text carefully and answer the questions:

4.0

The school organised a farwell party for 100 students and school management decided three types of drinks will be distributed in farewell party i.e., Milk (M), Coffee (C) and Tea (T).



Organiser reported that 10 students had all three drinks M, C, T. 20 students had M and C; 30 students and C and T; 25 students had M and T. 12 students had M only; 5 students had C only; 8 students had T only.

- Find the number of students who prefer Milk and Coffee but not tea?
- Find the number of students who prefer Tea.
- Find the number of students who prefer Coffee.
- Find the number of students who did not take any drink.

Question No. 41 to 44 are based on the given text. Read the text carefully and answer the questions:

4.0

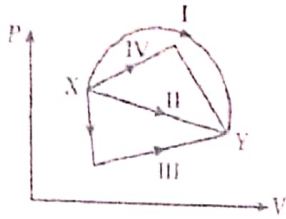
Ashish is writing examination. He is reading question paper during reading time. He reads instructions carefully. While reading instructions, he observed that the question paper consists of 15 questions divided in to two parts - part I containing 8 questions and part II containing 7 questions.



- If Ashish is required to attempt 8 questions in all selecting at least 3 from each part, then in how many ways can he select these questions

42. If Ashish is required to attempt 8 questions in all selecting 3 from I part, then in how many ways can he select these questions
43. If Ashish is required to attempt 8 questions in all selecting 4 from part I and 4 from part II, then in how many ways can he select these questions
44. If Ashish is required to attempt 8 questions in all selecting 6 from one section and remaining from another section, then in how many ways can he select these questions

13. An ideal gas undergoing a change of state from X to Y through four different paths I, II, III, and IV are as shown [1]
in the P-V diagram that leads to the same change of state, then the change in internal energy is:

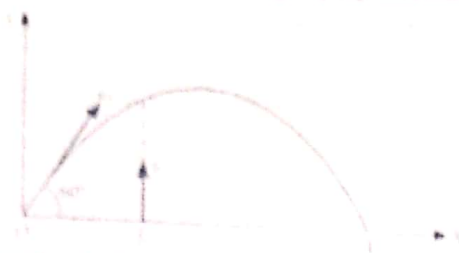


- a) same in all the four cases
b) same in I and II, but not in III and IV
c) same in I, II, and III, but not in IV
d) same in III and IV, but not in I and II
14. Two vessels separately contain two ideal gases A and B at the same temperature. The pressure of A being twice [1]
that of B. Under such conditions, the density of A is found to be 1.5 times the density of B. The ratio of
molecular weight of A and B is:
- a) 2
b) $\frac{1}{2}$
c) $\frac{3}{4}$
d) $\frac{4}{3}$
15. The length of a second's pendulum on the surface of earth is 1 m. What will be the length of a second's [1]
pendulum on the moon?
- a) $\frac{1}{6}$ m
b) $\frac{1}{4}$ m
c) 4 m
d) 6 m
16. **Assertion:** The apparent weight of a body in an elevator moving with some downward acceleration is less than [1]
the actual weight of body.
Reason: Some part of the weight is spent in producing downward acceleration, when body is in elevator.
- a) If both assertion and reason are true and reason is the correct explanation of assertion.
b) If both assertion and reason are true but reason is not the correct explanation of assertion.
c) If assertion is true but reason is false.
d) If both assertion and reason are false.
17. **Assertion:** A small drop of mercury is spherical but bigger drops are oval in shape. [1]
Reason: Surface tension of liquid decreases with an increase in temperature.
- a) Assertion and reason both are correct statements and reason is correct explanation for assertion.
b) Assertion and reason both are correct statements but reason is not correct explanation for assertion.
c) Assertion is correct statement but reason is wrong statement.
d) Assertion is wrong statement but reason is correct statement.
18. **Assertion (A):** Sound is produced due to vibratory motion but a vibrating pendulum does not produce audible [1]
sound.
Reason (R): A vibrating source always produce audible sound.
- 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.

Section B

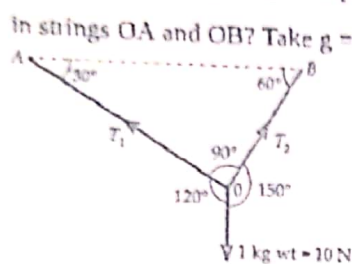
19. As shown in Figure, a body is projected with velocity u_1 from point A. At the same time

[2]



another body is projected vertically upwards with the velocity u_2 from point B. What should be the value of $\frac{u_1}{u_2}$ for both the bodies to collide?

20. A ball of mass 1 kg hangs in equilibrium from two strings OA and OB as shown in figure. What are the tensions in strings OA and OB? Take $g = 10 \text{ ms}^{-2}$. [2]



OR

Give the magnitude and direction of the net force acting on

- A drop of rain falling down with constant speed.
- A kite skillfully held stationary in the sky.

21. A spaceship is launched into a circular orbit close the Earth's surface. What additional velocity has now to be imparted to the spaceship in the orbit to overcome the gravitational pull of Earth. Take radius of Earth as 6400 km and $g = 9.8 \text{ m s}^{-2}$ [2]
22. The average depth of Indian Ocean is about 3000 m. Calculate the fractional compression, $\frac{\Delta V}{V}$, of water at the bottom of the ocean, given that the bulk modulus of water is $2.2 \times 10^9 \text{ Nm}^{-2}$. (Take $g = 10 \text{ ms}^{-2}$) [2]
23. Explain that a reversible process must be carried slowly and a fast process is necessarily irreversible. [2]
24. a. When a molecule (or an elastic ball) hits a (massive) wall, it rebounds at the same speed. When a ball hits a massive bat held firmly, the same thing happens. However, when the bat is moving towards the ball, the ball rebounds at a different speed. Does the ball move faster or slower? [2]
 b. When the gas in a cylinder is compressed by pushing in a piston, its temperature rises. Guess an explanation of this in terms of kinetic theory using (a) above.
 c. What happens when a compressed gas pushes a piston out and expands. What would you observe?
 d. Sachin Tendulkar used a heavy cricket bat while playing. Did it help him in any way?
25. For a particle in SHM, the displacement x of the particle as a function of time t is given as [2]

$$x = A \sin (2 \pi t)$$

Here x is in cm and t is in seconds.

Let the time taken by the particle to travel from $x = 0$ to $x = \frac{A}{2}$ be t_1 and the time taken to travel from $x = \frac{A}{2}$ to $x = A$ be t_2 . Find $\frac{t_1}{t_2}$.

OR

A simple pendulum consisting of an inextensible length l and mass m is oscillating in a stationary lift. The lift then accelerates upwards with a constant acceleration of 4.5 m/s^2 . Write expression for the time period of simple

pendulum in two cases. Does the time period increase, decrease or remain the same, when lift is accelerated upwards?

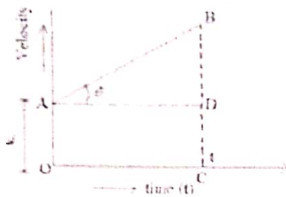
Section C

26. A planet moves around the sun in nearly circular orbit. Its period of revolution T depends upon: [3]
- radius r of orbit
 - mass M of the sun and
 - the gravitational constant G .

Show dimensionally that $T^2 \propto r^3$.

Taking the proportionality constant as 2π , write the expression for T .

27. Establish $s = ut + \frac{1}{2}at^2$ from velocity-time graph for a uniform accelerated motion? [3]



28. An object of mass 0.4 kg moving with velocity of 4 m/s collides with another object of mass 0.6 kg moving in same direction with a velocity of 2 m/s. If the collision is perfectly inelastic, what is the loss of KE due to impact? [3]

OR

A particle of mass m moving with an initial velocity u collides inelastically with a particle of mass M initially at rest. If the collision is completely inelastic then find expressions for

- final velocity of combined entity, and
 - loss in kinetic energy during collision.
29. Explain the following [3]
- Hot tea cools rapidly when poured into the saucer from the cup.
 - Temperature of a hot liquid falls rapidly in the beginning but slowly afterwards.
 - A hot liquid cools faster if outer surface of the container is blackened.
30. A source of frequency 250Hz produces sound waves of wavelength 1.32 m in a gas at STP. Calculate the change [3] in the wavelength, when temperature of the gas is 40°C .

OR

A wave travelling along a string is described by $y(x, t) = 0.005\sin(80.0x - 3.0t)$ in which the numerical constants are in SI units (0.005 m, 80.0 rad m^{-1} and 3.0 rad s^{-1}). Calculate

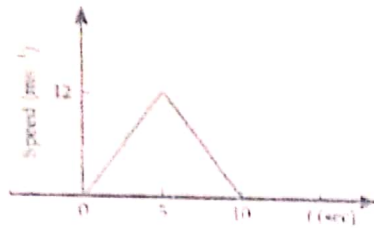
- the amplitude of particle,
- the wavelength and
- the period and frequency of the wave. Also, calculate displacement y of the particle at a distance $x = 30.0$ cm and time $t = 20$ s?

Section D

31. A ball is thrown upward with an initial velocity of 100 m/s. After how much time will it return? Draw velocity-time graph for the ball and find from the graph: [5]
- Maximum height attained by the ball.
 - Height of the ball after 15 s. (Take $g = 10 \text{ ms}^{-1}$)

OR

The speed-time graph of a particle moving along a fixed direction is shown in Fig. Find:



- i. distance travelled by the particle between 0 sec to 10 sec
 - ii. average speed between this interval
 - iii. the time when the speed was minimum
 - iv. the time when speed was maximum.
32. Glycerine flows steadily through a horizontal tube of length 1.5 m and radius 1.0 cm. If the amount of glycerine collected per second at one end is $4.0 \times 10^{-3} \text{ kg s}^{-1}$, what is the pressure difference between the two ends of the tube? (Density of glycerine = $1.3 \times 10^3 \text{ kg m}^{-3}$ and viscosity of glycerine = 0.83 N s m^{-2} .) [5]

OR

Explain why

- i. To keep a piece of paper horizontal, you should blow over, not under, it.
 - ii. When we try to close a water tap with our fingers, fast jets of water gush through the openings between our fingers.
 - iii. The size of the needle of a syringe controls flow rate better than the thumb pressure exerted by a doctor while administering an injection.
 - iv. A fluid flowing out of a small hole in a vessel results in a backward thrust on the vessel.
 - v. A spinning cricket ball in air does not follow a parabolic trajectory.
33. i. The transverse displacement of a string (clamped at its both ends) is given by $y(x, t) = 0.05 \sin\left(\frac{2\pi}{3}x\right) \cos(120\pi t)$ where x and y are in m and t in s. Do all the points on the string oscillate with the same [5]
- a. frequency,
 - b. phase,
 - c. amplitude? Explain your answers.
- ii. What is the amplitude of a point 0.375 m away from one end?

OR

A pipe, 30.0 cm long, is open at both ends. Which harmonic mode of the pipe resonates a 1.1 kHz source? Will resonance with the same source be observed if one end of the pipe is closed? Take the speed of sound in air as 330 m s^{-1} .

Section E

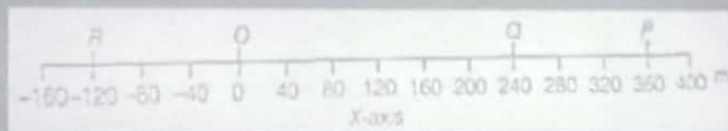
34. Read the text carefully and answer the questions:

(4)

If the position of an object is continuously changing w.r.t. its surrounding, then it is said to be in the state of motion.

Thus, motion can be defined as a change in position of an object with time. It is common to everything in the universe.

In the given figure, let P, Q and R represent the position of a car at different instants of time.



i. With reference to the given figure, What are the position coordinates of points P and R?

(1)

ii. Give any 2 differences

(1)

between distance
and displacement.

- iii. From the given (2)
figure, find the
displacement of a
car in moving from
O to P and then to
Q?

OR

If the car goes from
O to P and returns
back O, what will be
the displacement of
the car for whole
journey?

**35. Read the text carefully and
answer the questions:**

There are many types of
spring. Important among
these are helical and spiral
springs as shown in the figure.



Usually, we assume that the springs are massless.

Therefore, work done is stored in the spring in the form of the elastic potential energy of the spring. Thus, the potential energy of a spring is the energy associated with the state of compression or expansion of an elastic spring.

- i. When the potential energy of a spring may be considered as zero? (1)

i. When the potential energy of a spring may be considered as zero?

ii. The ratio of spring constants of two springs is 2 : 3. (1)

What is the ratio of their potential energy, if they are stretched by the same force?

iii. The potential energy of a spring increases by 15 J when stretched by 3 cm. If it is stretched by 4 cm, What will be the increase in potential energy? (2)

OR

OR

The potential energy of a spring when stretched through a distance x is 10 J. What is the amount of work done on the same spring to stretch it through an additional distance x ?

$$a) x^2 + y^2 - 2x - 3y = 0$$

$$b) x^2 + y^2 + 2x - 3y = 0$$

$$c) x^2 + y^2 + 2x + 3y = 0$$

$$d) x^2 + y^2 - 2x + 3y = 0$$

21. Convert the decimal number to the binary number: 517 [2]
22. Find the values of the letter and give a reason for the steps involved. [2]
- $$\begin{array}{r} B A \\ \times B 3 \\ \hline 57 A \end{array}$$
23. State whether each of the following statements are true or false. If the statement is false, re-write the given statement correctly: [2]
- If $P = \{m, n\}$ and $Q = \{n, m\}$, then $P \times Q = \{(m, n), (n, m)\}$
 - If A and B are non-empty sets, then $A \times B$ is a non-empty set of ordered pairs (x, y) such that $x \in B$ and $y \in A$.
 - If $A = \{1, 2\}$, $B = \{3, 4\}$, then $A \times (B \cap \phi) = \phi$.
24. There are 12 points in a plane of which 5 are collinear. These points are joined in pairs. Find the number of straight lines formed. [2]
25. A stone is dropped into a quiet lake and waves move in circles at a speed of 3.5 cm per second. At the instant when the radius of the circular wave is 7.5 cm, how fast is the enclosed area increasing? [2]
26. Find the values of the letter and give a reason for the steps involved. [3]
- $$\begin{array}{r} 2 A B \\ + A B 1 \\ \hline B 1 8 \end{array}$$
27. If $A = \{1, 3, 5\}$, $B = \{x, y\}$ represent the following products by arrow diagrams: [3]
- $A \times B$
 - $B \times A$
 - $A \times A$
 - $B \times B$
28. Discuss the continuity of the function given by $f(x) = |x - 1| + |x - 2|$ at $x = 1$ and $x = 2$. [3]
29. Differentiate: $(\log x)^x + x^{\log x}$ with respect to x . [3]
30. The catalogue price of an article is ₹ 20,000. The dealer allows two successive discounts of 15% and 10%. He further allows an off-season of 10% on the balance. If the sales are intra-state and the rate of GST is 12%, find [3]
- the GST amount the customer has to pay.
 - the total price that the customer has to pay for the article.
31. Find the equation of the circle passing through the points (1, -2), (5, 4) and (10, 5). [3]
32. In an University, out of 100 students 15 offered Mathematics only; 12 offered Statistics only; 8 offered only Physics; 40 offered Physics and Mathematics; 20 offered Physics and Statistics; 10 offered Mathematics and Statistics; 65 offered Physics. By drawing a Venn diagram, find the number of students who [4]
- offered Mathematics,
 - offered Statistics,
 - did not offer any of the above three subjects.
33. Read the information given below and answer the questions that follow: [4]
- A family of Ravi, Rekha, Gaurav, Saurabh, Payal, Mohit, Monika, Swasti and Shaurya consists of 3 generations.

Ravi is the husband of Rekha and has 2 sons and one daughter Payal. Mohit is Rekha's son-in-law. Saurabh is Payal's brother and Monika's brother-in-law. Gaurav has two children.

- i. How is Gaurav related to Mohit?
- ii. How is Saurabh related to Ravi?
- iii. How is Ravi related to Shaurya?
- iv. How is Mohit related to Payal?
- v. How is Mohit related to Swasti?

34. A car manufacturing factory has two plants X and Y. Plant X manufactures 70% of the cars and plant Y manufactures 30%. 80% of the cars at plant X and 90% of the cars at plant Y are rated of standard quality. A car is chosen at random and is found to be of standard quality. What is the probability that it has come from plant X? [4]

35. If the first term of an A.P. is 2 and the sum of the first five terms is equal to one-fourth of the sum of the next five terms, find the sum of the first 30 terms. Also, find its 20th term. [4]

36. **Read the Case study given below and attempt any 4 sub parts:** [4]

One morning a big circus arrived in the Ramleela maidan at Delhi. The arrival of the circus was seen in the morning at 08:00 AM by Gopal. He passed this information on 08:15 to 2 other residents of the city.

Each of these 2 people then informed the other 2 residents at 08:30, and again at 08:45, they reported the arrival of the circus every 2 to other uninformed residents

This chain continued the same way till 12:00 PM. By 12:00 PM enough people were informed about the arrival of the circus.



Answer the following questions:

- i. By 12:00 PM total how many people were informed about the arrival of the circus?
 - a. 131000
 - b. 131017
 - c. 141000
 - d. 65536
- ii. By 10:00 AM total how many people were informed about the arrival of the circus?
 - a. 511
 - b. 256
 - c. 300
 - d. 500
- iii. From 10:00 AM to 11:00 AM how many people were informed about the circus?

- a. 8000
- b. 7000
- c. 7680
- d. 7936

iv. What are the three terms between 16 and 256?

- a. 64,32,128
- b. 16,32,256
- c. 32,64,128
- d. 16,32,64

v. At 10:30 AM how many people were informed about the circus?

- a. 512
- b. 1024
- c. 2048
- d. 2047

37. **Read the Case study given below and attempt any 4 subparts:**

[4]

A locker in a bank has 3 digit lock. Each place's digits may vary fro 0 to 9. Mahesh has a locker in the bank where he can put all his property papers and important documents. Once he needs one of the document but he forgot his password and was trying all possible combinations.



Read the above information and answer the following questions:

i. He took 6 seconds for each try. How much time will be needed by Mahesh to try all the combinations:

- a. 90 minutes
- b. 120 minutes
- c. 60 minutes
- d. 100 minutes

ii. How many permutations of 3 different digits are there, chosen from the ten digits 0 to 9 inclusive:

- a. 84
- b. 120
- c. 504
- d. 720

iii. The total number of 9-digit numbers that have all different digits is:

- a. 10!
- b. 9!
- c. $9 \times 9!$
- d. $10 \times 10!$

iv. A bank has 6 digit account number with no repetition of digits within an account number. The first and last digit of the account numbers is fixed to be 4 and 7. How many such account numbers are possible:

- a. 10080
- b. 5040
- c. 890
- d. 1680

v. If ${}^n C_{12} = {}^n C_8$, then n is equal to:

- a. 20
- b. 12
- c. 6
- d. 30

38. A retailer buys T.V. a set for ₹ 40,000 from a wholesaler at a discount of 20% on the printed price and sells it to a consumer at the printed price. If the sales are intrastate and the rate of GST is 12%, find **[4]**
- i. the price, including GST, at which T.V. set was bought by the retailer.
 - ii. the price at which the consumer bought the T.V. set.
 - iii. the GST paid by the retailer.
 - iv. the GST paid by the consumer.
39. Find the equation of the circle drawn on a diagonal of the rectangle as its diameter whose sides are the lines **[4]**
given by: $x = 4$, $x = -2$, $y = 5$ and $y = -2$.



Bhagwan Mahaveer Public Sr Sec School, Banga

Class: 11th

MTP: Painting (Additional

Section - 1

(1x6=6)

Multiple Choice Question

1). Sculpture 'Nataraj' is made of which material?

- (a) White marble
- (b) Bronze
- (c) Terracotta
- (d) Sandstone

2). Under which Indian dynasty was 'The descent of Ganga' made?

- (a) Pallavas
- (b) Cholas
- (c) Rashtrakutas
- (d) Chandelas

3). Mention the time period of the 'Descent of Ganga'.

- (a) 5th century A.D.
- (b) 7th century A.D.
- (c) 3rd century A.D.
- (d) 9th century A.D.

4). Under which Indian dynasty was the 'Cymbal Player' made?

- (a) Ganga
- (b) Pallavas
- (c) Cholas
- (d) Mauryas

5). The 'Descent of Ganga' is also known as:

- (a) Arjuna's Penance
- (b) Mandapa
- (c) Tirthankara
- (d) Temple

6). Shiva, the cosmic dancer is called:

- (a) Vishnu
- (b) Nataraja
- (c) Tandava
- (d) Bholenath

Section - II

(3x2=6)

7). Evaluate the composition arrangement of any two of the following in short:

- (i) Dancing girl
- (ii) Cymbal player
- (iii) Malr Torso

Section - III

(3x2=6)

8). Mention the time period, location and dynasty of the 'Nataraj'.

9). Mention the medium, time period and dynasty of the 'Mother and child'.

Section - IV

(6x2=12)

10). Write detailed note on any two of the following:

- (i) Taj Mahal
- (ii) Mother and child
- (iii) Qutub minar

ਕਲਾਸ:- ਗਿਆਰਵੀਂ

ਵਿਸ਼ਾ:- ਪੰਜਾਬੀ

ਸਮਾਂ:- ਤਿੰਨ ਘੰਟੇ

ਕੁੱਲ ਅੰਕ:- 80

ਆਮ ਨਿਰਦੇਸ਼

***ਹੇਠ ਲਿਖੇ ਨਿਰਦੇਸ਼ਾਂ ਨੂੰ ਧਿਆਨ ਨਾਲ ਪੜ੍ਹੋ ਅਤੇ ਉਹਨਾਂ ਦਾ ਪਾਲਣ ਕਰੋ:-**

* ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹਨ।

* ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚ ਦਿੱਤੀ ਗਈ ਅੰਦਰੂਨੀ ਚੋਣ ਨੂੰ ਧਿਆਨ ਨਾਲ ਦੇਖ ਕੇ ਨਿਰਦੇਸ਼ਾਂ ਅਨੁਸਾਰ ਹੱਲ ਕੀਤਾ ਜਾਵੇ।

* ਲਿਖਾਈ ਸਾਫ ਅਤੇ ਸੁੱਧ ਲਿਖੀ ਜਾਵੇ।

* ਸਹੀ ਪ੍ਰਸ਼ਨ ਨੰਬਰ ਲਿਖ ਕੇ ਉੱਤਰਾਂ ਨੂੰ ਧਿਆਨ ਨਾਲ ਉੱਤਰ- ਸ਼ੀਟ 'ਤੇ ਲਿਖਿਆ ਜਾਵੇ।

1. ਹੇਠ ਲਿਖੇ ਅਣਡਿੱਠੇ ਪੈਰੇ ਨੂੰ ਧਿਆਨ ਨਾਲ ਪੜ੍ਹੋ ਅਤੇ ਪੁੱਛੇ ਗਏ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਸਧਾਰਨ ਵਾਕ ਬਣਾ ਕੇ ਆਪਣੇ ਸ਼ਬਦਾਂ ਵਿੱਚ ਲਿਖੋ:- (1x 5=5)

ਲੋਕ ਗੀਤ ਕਿਸੇ ਜਾਤੀ ਦੇ ਹਿਰਦੇ ਦਾ ਪ੍ਰਕਾਸ਼ ਹੁੰਦੇ ਹਨ। ਇਹ ਲੋਕਾਂ ਦੇ ਵੇਗ ਵਿਚ ਆਏ ਉਹ ਜਜ਼ਬੇ ਤੇ ਸਧਰਾਂ ਹਨ, ਜੋ ਸਹਿਜ ਰੂਪ ਵਿਚ ਦੀ ਸ਼ਬਦਾਂ ਦਾ ਬਾਣਾ ਪਾ ਕੇ ਸਮੂਰਤ ਹੋ ਗਈਆਂ ਹਨ। ਇਨ੍ਹਾਂ ਦੀ ਤੁਲਨਾ ਉਨ੍ਹਾਂ ਚਸ਼ਮਿਆਂ ਨਾਲ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ, ਜਿਹੜੇ ਧਰਤੀ ਦੀ ਹਿੱਕ ਵਿਚ ਆਪ-ਮੁਹਾਰੇ ਫਲਕ ਕੇ ਵਹਿਣ ਬਣ ਕੇ ਫੈਲ ਜਾਂਦੇ ਹਨ ਜਾਂ ਫਿਰ ਉਨ੍ਹਾਂ ਫੁੱਲਾਂ ਨਾਲ ਜਿਹੜੇ ਜੰਗਲਾਂ ਤੇ ਵੀਰਾਨਿਆਂ ਵਿਚ ਖੁਦ ਬਖੁਦ ਉੱਗਦੇ ਤੇ ਮੁਸਕਰਾਉਂਦੇ ਰਹਿੰਦੇ ਹਨ। ਇਨ੍ਹਾਂ ਵਿਚਲਾ ਸਹਿਜ ਰਸ ਹਵਾ ਨਾਲ ਰੁਮਕਦੀ ਉਹ ਸੁਰਾਂਧੀ ਵਾਂਗ ਭਿੰਨਾ ਹੁੰਦਾ ਹੈ, ਜਿਹੜੀ ਪਤਾ ਨਹੀਂ ਕਿੱਥੇ-ਕਿੱਥੇ ਮਹਿਕ ਨਾਲ ਝੋਲਾ ਭਰ ਲਿਆਉਂਦੀ ਹੈ। ਇਹ ਗੀਤ ਮਨੁੱਖੀ ਮਨ ਦੇ ਉਛਾਲੇ ਹਨ, ਹਿਰਦੇ ਦੀ ਤਹਿ ਦੀ ਕੋਈ ਤਰੰਗ, ਜੀਵਨ ਦਾ ਕੋਈ ਝੋਕਾ। ਆਦਿ ਕਾਲ ਤੋਂ ਹੀ ਪ੍ਰਾਣੀ ਸੁਹਜ ਦਾ ਰਸੀਆ ਰਿਹਾ ਹੈ। ਮੁੱਢਲੀਆਂ ਲੋੜਾਂ ਦੀ ਪੂਰਤੀ ਦੇ ਨਾਲ-ਨਾਲ ਆਪਣੀ ਸੁਹਜ- ਭੁੱਖ ਦੀ ਤ੍ਰਿਪਤੀ ਲਈ ਵੀ ਜਤਨ ਕਰਦਾ ਹੈ। ਆਦਿ ਮਨੁੱਖ ਨੂੰ ਸਦਾ ਸ਼ਬਦਾਂ ਨਾਲੋਂ ਧੁਨੀਆਂ ਵਧੇਰੇ ਰਸਦਾਇਕ ਲੱਗਦੀਆਂ ਹਨ।

ਪ੍ਰਸ਼ਨ:-

i. ਲੋਕ-ਗੀਤ ਕੀ ਹੁੰਦੇ ਹਨ ?

ii. ਲੋਕ-ਗੀਤਾਂ ਦੀ ਤੁਲਨਾ ਕਿੰਨ੍ਹਾ ਨਾਲ ਕੀਤੀ ਜਾਂਦੀ ਹੈ ?

iii. ਆਦਿ-ਕਾਲ ਤੋਂ ਪ੍ਰਾਣੀ ਕਿਸ ਚੀਜ਼ ਦਾ ਰਸੀਆ ਰਿਹਾ ਹੈ ?

iv. ਮਨੁੱਖ ਨੂੰ ਕਿਹੜੀ ਚੀਜ਼ ਵਿਚ ਰੱਸ ਜ਼ਿਆਦਾ ਆਉਂਦਾ ਹੈ ?

v. ਲੋਕ ਗੀਤ ਕਿਵੇਂ ਬਣਦੇ ਹਨ ?

2. ਕਿਸੇ ਅਖਬਾਰ ਦੇ ਸੰਪਾਦਕ ਨੂੰ ਇੱਕ ਪੱਤਰ ਲਿਖੋ ਜਿਸ ਵਿੱਚ ਅੱਜਕੱਲ੍ਹ ਖਾਣ ਪੀਣ ਵਾਲੀਆਂ ਚੀਜ਼ਾਂ ਵਿੱਚ ਹੁੰਦੀ ਮਿਲਾਵਟ ਦਾ ਜ਼ਿਕਰ ਕਰੋ।

ਜਾਂ

ਤੁਸੀਂ ਵਾਤਾਵਰਨ ਦੀ ਸਾਂਭ ਸੰਭਾਲ ਲਈ ਆਮ ਲੋਕਾਂ ਨੂੰ ਪ੍ਰੇਰਿਤ ਕਰਨ ਲਈ ਇੱਕ ਲੇਖ ਲਿਖਿਆ ਹੈ। ਤੁਸੀਂ ਚਾਹੁੰਦੇ ਹੋ ਕੇ ਇਹ ਲੇਖ ਸਾਰੇ ਲੋਕਾਂ ਤੱਕ ਪਹੁੰਚੇ। ਇਸ ਲਈ ਉਸ ਲੇਖ ਦੇ ਕੁੱਝ ਮਹੱਤਵਪੂਰਨ ਨੁਕਤੇ ਕਿਸੇ ਅਖਬਾਰ ਦੇ ਸੰਪਾਦਕ ਨਾਲ ਸਾਂਝੇ ਕਰਦੇ ਹੋਏ ਇੱਕ ਪੱਤਰ ਲਿਖੋ।

(8x1=8)

3. ਹੇਠ ਲਿਖਿਆਂ ਵਿੱਚੋਂ ਕਿਸੇ ਇੱਕ ਵਿਸ਼ੇ ਉੱਤੇ ਲੇਖ ਰਚਨਾ ਕਰੋ। (12x 1=12)

ਗਲੇਬਲ ਵਰਮਿੰਗ ਜਾਂ ਕੋਮੀ ਏਕਤਾ

4. ਅੰਗਰੇਜ਼ੀ ਤੋਂ ਪੰਜਾਬੀ ਅਨੁਵਾਦ:-

(i) ਹੇਠ ਲਿਖੇ ਦਫ਼ਤਰੀ ਸ਼ਬਦਾਵਲੀ ਨਾਲ ਸੰਬੰਧਤ ਸ਼ਬਦਾਂ ਵਿੱਚੋਂ ਕਿਸੇ ਪੰਜ ਦਾ ਪੰਜਾਬੀ ਅਨੁਵਾਦ ਕਰੋ:- (1x 5=5)

Suspension, Pay scale, Nominated, Memorandum, In accordance with, Endorsement, For disposal

(ii) ਹੇਠ ਲਿਖੇ ਵੱਖ ਵੱਖ ਵਿਸ਼ਿਆਂ ਨਾਲ ਸੰਬੰਧਤ ਸ਼ਬਦਾਵਲੀ ਦੇ ਸ਼ਬਦਾਂ ਵਿੱਚੋਂ ਕਿਸੇ ਪੰਜ ਦਾ ਪੰਜਾਬੀ ਅਨੁਵਾਦ ਕਰੋ:-

(1x 5=5)

Yawn, Wreath, Vehicle, Unit, Tenant, Lockout

iii. ਹੇਠ ਲਿਖਿਆਂ ਅੰਗਰੇਜ਼ੀ ਵਾਕਾਂ ਦਾ ਪੰਜਾਬੀ ਅਨੁਵਾਦ ਕਰੋ:- (2x4=8)

i. Interest upon deposit ceases from the dates of maturity.

ii. Retiring rooms are booked at window No. 12

iii. If the due premium is not paid within the days of grace, the policy becomes paid up.

iv. E-mail is used to send and receive messages.

v. Examine the receipts properly after making payment of insurance policy.

5. ਹੇਠ ਲਿਖੇ ਮੁਹਾਵਰਿਆਂ ਵਿੱਚੋਂ ਕਿਸੇ ਪੰਜ ਦੇ ਅਰਥ ਲਿਖ ਕੇ ਵਾਕ ਬਣਾਓ:- (1x5=5)

i. ਅੱਕੀ ਪਲਾਹੀ ਹੱਥ ਮਰਨਾ ii. ਹਵਾ ਦੇ ਘੋੜੇ ਸਵਾਰ ਹੋਣਾ

iii. ਕਣਕ ਨਾਲ ਘੁਣ ਪਿਸਣਾ iv. ਖੰਭ ਲਾ ਕੇ ਉੱਡ ਜਾਣਾ

v. ਸਿਰ ਮੜ੍ਹਨਾ vi. ਉੱਘ ਸੁੱਘ ਮਿਲਣਾ

6. ਪੰਜਾਬੀ ਦੇ ਕਿਸੇ ਨਾਮਵਰ ਅਖਬਾਰ ਵਿੱਚ ਪਲਾਟ ਵੇਚਣ ਸਬੰਧੀ ਇੱਕ ਇਸ਼ਤਿਹਾਰ ਲਿਖੋ।

ਜਾਂ

ਤੁਸੀਂ ਇੱਕ ਨਵਾਂ ਕਪੜੇ ਦਾ ਸ਼ੋ-ਰੂਮ ਖੋਲ੍ਹਿਆ ਹੈ। ਇਸ ਦੇ ਉਦਘਾਟਨ ਸਬੰਧੀ ਇੱਕ ਸੱਦਾ ਪੱਤਰ ਲਿਖੋ। (7x1=7)

* ਪੰਜਾਬੀ ਲੋਕ ਸਾਹਿਤ:-

7. ਹੇਠ ਲਿਖੇ ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚੋਂ ਕਿਸੇ ਚਾਰ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਇੱਕ ਵਾਕ ਜਾਂ ਇੱਕ ਸ਼ਬਦ ਵਿੱਚ ਲਿਖੋ:- (1x4=4)

i. "ਦੇਈਂ ਦੇਈਂ, ਵੇ ਬਾਬਲਾ ਓਸ ਘਰੇ" ਤੋਂ ਕੀ ਭਾਵ ਹੈ?

- ii. "ਅੱਸੂ ਦਾ ਕਾਜ ਰਚਾ" ਲੇਕ ਗੀਤ ਦਾ ਕਿਹੜਾ ਰੂਪ ਹੈ?
- iii. "ਹਰਿਆ ਨੀ ਮਾਲਣ" ਘੋੜੀ ਵਿੱਚ "ਹਰਿਆ" ਕਿਸ ਨੂੰ ਕਿਹਾ ਗਿਆ ਹੈ?
- iv. ਸਿੱਠਣੀਆਂ ਕਿਸ ਵੱਲੋਂ ਕਿਸ ਨੂੰ ਸੰਬੋਧਨ ਹੁੰਦੀਆਂ ਹਨ?
- v. ਟੱਪੇ ਨੂੰ ਹੋਰ ਕਿਸ ਨਾਮ ਨਾਲ ਜਾਣਿਆ ਜਾਂਦਾ ਹੈ?

8. ਹੇਠ ਲਿਖੇ ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚੋਂ ਕਿਸੇ ਚਾਰ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਇੱਕ ਵਾਕ ਜਾਂ ਇੱਕ ਸ਼ਬਦ ਵਿੱਚ ਲਿਖੋ:- (1x4=4)

- i. ਪਿੰਡ ਤਾਂ ਸਾਡੇ ਬੋਲੀ ਵਿੱਚ ਗੱਭਰੂ ਨੇ ਸਾਧ ਦਾ ਡੇਰਾ ਕਿਉਂ ਛੱਡ ਦਿੱਤਾ?
- ii. ਪਿੰਡਾਂ ਵਿੱਚੋਂ ਪਿੰਡ ਸੁਣੀਂਦਾ ਬੋਲੀ ਵਿੱਚ ਕਿਸ ਪਿੰਡ ਦਾ ਨਾਮ ਆਇਆ ਹੈ?
- iii. ਬੁੱਤ ਬਣੇਟਿਆ ਕਿਸ ਨੂੰ ਕਿਹਾ ਗਿਆ ਹੈ?
- iv. ਹੇਠ ਲਿਖੀ ਬੁਝਾਰਤ ਦਾ ਸਹੀ ਉੱਤਰ ਦੱਸੋ:-

ਹਰੀ ਹਰੀ ਗੰਦਲ ਕੱਚ ਦਾ ਕੋਠਾ, ਕਚਨਾਰ ਦੀਆਂ ਫਲੀਆਂ,

ਸ਼ਰਬਤ ਦੇ ਘੁੱਟ ਮਿਸ਼ਰੀ ਦੀਆਂ ਡਲੀਆਂ।

- v. ਅੱਸੀਆਂ ਪਾਉਣ ਤੋਂ ਕੀ ਭਾਵ ਹੈ?

9. ਹੇਠ ਲਿਖੇ ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚੋਂ ਕਿਸੇ ਤਿੰਨ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ 40-50 ਸ਼ਬਦਾਂ ਵਿੱਚ ਲਿਖੋ:- (3x3=9)

- i. ਪਾਠ ਪੁਸਤਕ ਵਿੱਚ ਦਰਜ ਮਾਹੀਏ ਵਿੱਚ ਨਾਇਕ ਦੀ ਬੇਵੱਸੀ ਪ੍ਰਗਟ ਹੋਈ ਹੈ। ਦੱਸੋ ਕਿਵੇਂ?
- ii. ਕੰਨਾਂ ਨੂੰ ਸੋਹਣੇ ਬੂੰਦੇ ਢੇਲੇ ਵਿੱਚ ਆਈ ਤੁਕ 'ਨੇਹੂੰ ਨਾ ਲੱਗਦੇ ਜ਼ੋਰ ਦੇ ਤੋਂ ਕੀ ਭਾਵ ਹੈ?
- iii. "ਸਤਿਗੁਰਾਂ ਕਾਜ ਸਵਾਰਿਆ ਈ" ਘੋੜੀ ਵਿੱਚ ਕਿਹੜੇ ਭਾਵ ਅੰਕਿਤ ਹੋਏ ਹਨ?
- iv. "ਦੇਈਂ ਦੇਈਂ, ਵੇ ਬਾਬਲਾ" ਲੇਕ ਗੀਤ ਵਿੱਚ ਧੀ ਹੇਠ ਲਿਖੀ ਤੁਕ ਮੁੜ ਮੁੜ ਕਿਉਂ ਸੰਬੋਧਨ ਕਰਦੀ ਹੈ?

10. ਹੇਠ ਲਿਖੇ ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚੋਂ ਕਿਸੇ ਚਾਰ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ 25-30 ਸ਼ਬਦਾਂ ਵਿੱਚ ਲਿਖੋ:- (2x4=8)

- i. ਦੁੱਲੇ ਦੀ ਬਾਗ਼ੀ ਤਬੀਅਤ ਹੋਣ ਪਿੱਛੇ ਕਿਹੜੀਆਂ ਘਟਨਾਵਾਂ ਦਾ ਹੱਥ ਸੀ?
- ii. ਰਾਜੇ ਸਲਵਾਨ ਨੇ ਰਸਾਲੂ ਨੂੰ ਦੇਸ਼ ਨਿਕਾਲਾ ਕਿਉਂ ਦਿੱਤਾ?
- iii. ਹੀਰ ਅਤੇ ਰਾਂਝੇ ਦਾ ਮਸਲਾ ਕਾਜ਼ੀ ਕੋਲ ਕਿਉਂ ਪਹੁੰਚ ਗਿਆ?
- iv. ਸਾਹਿਬਾਂ ਦੇ ਭਰਾਵਾਂ ਨੇ ਮਿਰਜ਼ੇ ਦਾ ਪਿੱਛਾ ਕਿਉਂ ਕੀਤਾ?
- v. ਪੂਰਨ ਗੋਰਖ ਨਾਥ ਦੇ ਸੰਪਰਕ ਵਿੱਚ ਕਿਵੇਂ ਆਇਆ?



Bhagwan Mahaveer Public Sr Sec School, Banga

Class: 11th Subject Code: 048

Time : 3 hours

Sample Paper: PHYSICAL EDUCATION

M.M: 70

General Instructions:

1. The question paper consists of 30 questions and all are compulsory.
 2. Questions 1- 12 carry 1 mark each and are Multiple Choice Questions.
 3. Questions 13-16 carry 2 marks each and shall not exceed 40 -60 words.
 4. Questions 17-26 carry 3 marks each and shall not exceed 80- 100 words.
 5. Questions 27- 30 carry 5 marks each and shall not exceed 150-200 words.
1. The major aim of physical education is to ensure a/an
- a) child's optimal physical development.
 - b) programme of activity and sports for all.
 - c) all round development of the individual.
 - d) complete removal of boredom of the class-room activity.
2. Traditionally, careers in physical education were focused on:
- (a) Teaching (b) Commentator (c) Sports Photography (d) Sports Marketing
3. Which of the followings are the objectives of Fit India Program?
- (a) To promote fitness as easy, fun and free (b) To encourage indigenous sports
(c) To spread awareness on fitness (d) All of these
4. The idea for reviving the Olympic Games came from
- (a) Eunice Kennedy Shriver. (b) Baron Pierre de Coubertin
(c) Dion Nash (d) Ludwig Guttmann
5. Where is the headquarters of International Olympic Committee located?
- (a) U.S.A (b) London (c) Switzerland (d) Germany
- Or
- Olympic flame was first introduced in
- (a) 1896 (b) 1928 (c) 1956 (d) 2008
6. Who coined the Olympic motto "Citius, Altius, Fortius"?
- (a) Rousseau (b) Aristotle (c) Plato (d) Henry Didone
7. Who gave this definition 'Checking the impulses of mind is Yoga'?
- (a) Patanjali (b) Shankaracharya (c) Shri Krishana (d) Swami Sivananda
8. The concentration of mind on an impulse without any divergence is known as:
- (a) Yoga (b) Pranayama (c) Vritti (d) balanced life
9. World Disability Day is celebrated on ____
- a) 2nd April b) 21st June c) 29 August d) 3rd December
10. The most important area catered to by adapted physical education is _____
- a) Physical health b) Mental health c) Social health d) Emotional health
11. What is the ability of an individual to live a physically mentally socially and emotionally balanced life:
- (a) Physical Fitness (b) Wellness (c) Lifestyle (d) All of the above
12. Physical exercise done in the presence of oxygen is called:
- (a) aerobic (b) anaerobic (c) isometric (d) isokinetic
13. When was Fit India Movement launched?
- Or
- What do you mean by sports journalism?
14. Write about the Olympic Flag?
15. What do you understand by the term Pranayama?
16. What is Disability?

17. Write in brief about the objective of Physical Education?

Or

Write a short note on FIT INDIA Program.

18. Write a short note on International Olympic Committee.

Or

What are the Olympic Symbols? Describe any one of them

19. Write a Short note on Samadhi.

20. Write the aims of adaptive physical education.

21. Write briefly about speed as a component of Physical fitness.

22. Explain in detail Physical Fitness Test and Sports skill Test?

23. What are gliding joints?

24. Write the importance of Kinesiology in game and Sports?

25. What are the stages of Team Cohesion?

26. What are the signs and symptoms of overload?

27. Discuss in detail about the structure of Khelo India Program.

28. Explain in detail about the concept of olympism and Olympics values.

29. Discuss the elements of Yoga in detail.

30. Describe types of disability with their symptoms.

Or

What are the different causes of disabilities?

11. Select the correct output of the following string operations.

```
str= "Waha"
```

```
print(str1[:3] + 'Bhyi' + str1[-3:])
```

- a) Wah Bhyi Wah b) Wah Bhyi aha c) WahBhyiWah d) WahBhyiWaha

12. Which of the following will always return a list?

- a) max () b) min() c) sort() d) sorted()

13. Which of the following can delete an element from a list if the index of the element is given?

- a) pop() b) remove() c) del d) all of these

14. What will be the output of the following python code?

```
tp = (5)
```

```
tp1 = tp*2
```

```
print(len(tp1))
```

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

15. Dictionaries are also called _____

- a) Mappings b) hashes c) associative arrays d) all of these

16. _____ are the records and traces of individuals online activities.

- a) Cyber law b) Digital footprint c) Social media d) Private browsing

17. _____ are attempts by individuals to obtain confidential information from you to falsifying their identity.

- a) Computer viruses b) Phishing scams c) Phishing trips d) Spyware scams

18. The rights of the owner of information to decide how much information is to be shared/exchanged/distributed, are collectively known as _____(IPR).

- a) Intelligent property rights b) Intellectual property rights
c) Interactive property rights d) Instance property rights

Section B

19. How is system software different from application software?

20. Convert 423_{10} to hexadecimal.

21. Write a program to input three numbers and swap them as this: second number gets the value of first + second number, third number get the value of second + third number.

22. Write a program to input a string and check if contains a digit or not.

OR

Write a program to calculate and print the sums of even and odd integers of the first n natural numbers.

23. What will be the output of the following statements?

i. list1=[12,32,65,26,80,10]

```
list1.sort()
```

```
print(list1)
```

- ii. `list1=[12,32,65,26,80,10]`
`sorted(list1)`
`print(list1)`
- iii. `list1=[1,2,3,4,5,6,7,8,9,10]`
`list1[:: -2]`
`list[: 3] + list1[3 :]`
- iv. `list1=[1,2,3,4,5]`
`list1[len(list1)-1]`

OR

Write a program to input a tuple and create two new tuples from it, one containing its every 3rd element in reverse order, starting from the last element another containing every alternate elements lying between 3rd to 9th elements.

24. Describe the following Cybercrimes:

- a) Cyber Bullying
- b) Cyber Stalking

25. What is (i) Authentication, (ii) Authorization? Why are these two used together?

OR

Expand the following terms: (i) OSS (ii) SDLC (iii) GNU (iv) FLOSS

Section C

26. Draw logic circuit diagram for the Boolean expression: $Q = \overline{A + B} C + \overline{A} \overline{B}$

27. Give a list containing these values [12, 13, 28, 13, 22, 25, 7, 13, 25]. Write a code to calculate mean, median and mode of this list.

28. Find the output of the following program segments:

- i) `i=0`
`sum = 0`
`while i < 9:`
`if i %4 ==0:`
`sum = sum + i`
`i = i+2`
`print(sum)`

- ii) Differentiate between break and continue statements using examples.

OR

Write a program to input names of n students and store them in a tuple. Also, input a name from the user and find if this student is present in the tuple or not.

29. Explain the various characteristics of a Dictionary.

30. What measures should one take to avoid and maintain confidentiality of personal information?

OR

- i. `print(stateCapital.get("Bihar"))`
- ii. `print(stateCapital.keys())`
- iii. `print(stateCapital.values())`
- iv. `print(stateCapital.items())`
- v. `print(len(stateCapital))`
- vi. `print("Maharashtra" in stateCapital)`

OR

- ```
print(stateCapital.get("Assam"))
```
- vii. `del stateCapital["Andhra Pradesh"]`  
`print(stateCapital)`



**Bhagwan Mahaveer Public Sr Sec School, Banga**

**Class: 11<sup>th</sup> Subject Code: 049**

**MTP: Painting**

**Section - I**

**(1x6=6)**

**Multiple Choice Question**

- 1). Which of the following were centers of Indus Valley Civilization?  
(a). Daman and Diu (b). Panaji (Goa)  
(c). Mohenjodaro and Harappa (d). Delhi NCR
- 2). The famous Ashokan pillar containing a sculpture of four lions standing back to back located at:  
(a). Sarnath (b). Bhopal  
(c). Allahabad (d). Peshawar
- 3). What is the height of Chauri Bearer from Didarganj?  
(a). 5'4" (b). 3'2"  
(c). 6" (d). 7'3"
- 4). Mention the size of the 'Bull seal'.  
(a). 10x5x2.5cms (b). 2.5x2.5x1.4cms  
(c). 25x15cms (d). 5.8x4.5x2cms
- 5). Select the animal which is not carved at the abacus of 'Lion capital from Sarnath'.  
(a). Deer (b). Elephant  
(c). Lion (d). Bull
- 6). Chauri Bearer from Didarganj is a sculpture from which period?  
(a). Mughal period (b). Mauryan period  
(c). Kushana period (d). Gandhara period

**Section - II**

**(2x3=6)**

**Answer the following question in about 30 words:**

- 7). Evaluate the composition arrangement of any three of the following in short:
- i) Wizard's Dance
  - ii) Trimurti
  - iii) Mother goddess
  - iv) Natraj

**Section - III**

**(3x2=6)**

- 8) i) Mention the time period, medium and collection of the 'Lion capital from Sarnath'
- ii) Mention the time period, dynasty and medium of the 'Seated Buddha from Katra'

**Section - IV**

**(3x2=6)**

**Answer the following question in about 250 words.**

- 9). Write short note on any two of the following.
- i). Chauri Bearer from Didarganj
  - ii). Male Torso
  - iii). Cymbal player

**Section - V**

**(6x1=6)**

**Answer the following question in about 300-350 words:**

10). Express your views on Taj Mahal

or

Write a detailed note on 'Qutub Minar'



## Bhagwan Mahaveer Public Sr Sec School, Banga

Class: 11<sup>th</sup> Subject Code: 301

MTP: English

Maximum Marks: 70

Time Allowed: 3 hours

### Section A

Q 1. Read the text carefully and answer the questions:.

(10)

The North-East of India is a melting pot of variegated cultural mosaic of people and races, an ethnic tapestry of many hues and shades. Yet, these states are lesser explored as compared to the rest of the country. The new generations of travellers who are 'money rich and time poor' are increasingly looking for unique experiences - a phenomenon being called the emergence of the 'experience economy'. For this new and growing breed of tourists, the North-East with its variety and uniqueness holds immense attraction.

A study conducted in 2020 by Dr. Sherap Bhutia, revealed that the foreign tourist arrival in the North-East increased from 37,380 persons in 2005 to 118,552 in 2014. The overall growth rate of tourist (both domestic and foreign) in the North-East was as high as 26.44% during 2005-06. A high and positive growth of 12.53% was registered in foreign tourist visits to North-East States of India during 2012 from 2011, which further rose to register a growth of 27.93% during 2013 from 2012. Foreign tourist arrivals in the North-East witnessed a growth of 39.77% during 2014 from 2013, according to data provided from the Ministry of Tourism, Government of India.

The study recommendations for tourism planners included the need to concentrate on some key areas like enhancement of tourist facilities, tourism financing, focus on community involvement and others for the formulation of a sustainable tourism strategy in the North-East States of India.

1. Infer one reason for the following, based on information in paragraph 1.

The rate of tourism in the North-East of India puzzles tourism officials

2. Select the appropriate option to fill in the blanks.

From paragraph 1, we can infer that the \_\_\_\_\_ and \_\_\_\_\_ of the North-Eastern states aid attracting the 'money rich and time poor' tourists.

- distinctiveness
- conventionality
- diversity
- uniformity
- modernity

a. i & iii

b. ii & iv

c. ii & v

d. i & iv

3. Complete the following analogy correctly with a word/ phrase from paragraph 1:

aroma : cooking :: \_\_\_\_\_ : painting

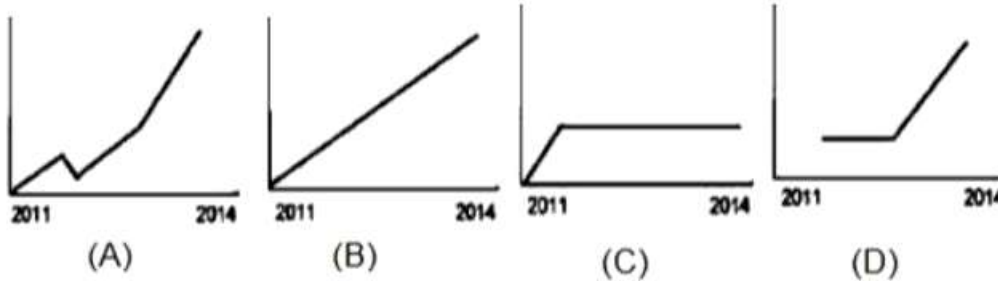
(Clue: Just like aroma is integral to cooking, similarly \_\_\_\_\_ is/are integral to painting)

4. Select the correct option to complete the following sentence:

Travellers advocating the 'experience economy' seek a holiday package with (Paragraph 1)

- grand facilities, expensive hotels and excellent services to pamper them.
- a wholesome experience within the budget they have planned for.
- places and cities to buy things from and opportunities spend money.
- cost-effective services, affordable accommodation and many days of touring.

5. Select the chart that appropriately represents the trend of foreign tourist travels in the North-East, from 2011-2014, as per paragraph 2.



- Option 1  
Option 2  
Option 3  
Option 4

6. Fill in the blank by selecting the correct option.

The study of tourist travel statistics in the North-East, from 2005 to 2014 showed \_\_\_\_\_ results.

- expected
- encouraging
- inconsistent
- questionable

7. Substitute the word 'witnessed' with ONE WORD similar in meaning, in the following, sentence from paragraph 2:

Foreign tourist arrivals in the North-East witnessed a growth of...

8. List any 2 examples of tourist facilities as referred to, in Paragraph 3.

9. List one reason why the researchers recommend that the formulation of a tourism strategy in the North-Eastern States of India be sustainable.

10. Select the option that titles paragraphs 1-3 appropriately, with reference to information in the text.

- (1) Full Speed Ahead!, (2) Ups and Downs, (3) Cause for Concern  
 (1) Winds of Change, (2) Numbers Don't Lie, (3) Time for Action  
 (1) Inspecting Trends, (2) Statistically Speaking, (3) Let's Investigate  
 (1) Cause & Effect, (2) Dynamic Data, (3) Dependable Facts

**Q2. Read the text carefully and answer the questions:.**

**(8)**

Punctuality is a necessary habit in public affairs of a civilized society. Without it nothing could ever be brought to a conclusion, everything would be in a state of chaos. Only in a sparsely populated rural community is it possible to disregard it. In the ordinary living there can be some tolerance of unpunctuality. The intellectual, who is working on some abstruse problem, has everything coordinated and organized for the matter in hand. He is therefore forgiven, if late for the dinner party. But people are often reproached for unpunctuality when their only fault is cutting fine. It is hard for energetic, quick-minded people to waste time, so they are often tempted to finish a job before setting out to keep an appointment. If no accidents occur on

the way, like punctured tires, diversion of traffic, sudden descent of fog, they will be on time. They are often more industrious, useful citizens than those who are never late. The over-punctual can as much be a trial to others as the unpunctual. The guest who arrives half an hour too soon is the greatest nuisance. Some friends of my family had this irritating habit. The only thing to do was to ask them to come half an hour later than the other guests. Then they arrived just when we wanted them. If you are catching a train, it is always better to be comfortably early than even a fraction of a minute too late. Although being early may mean wasting a little time, this will be less than if you miss the train and have to wait an hour or so for the next one. And you avoid the frustration of arriving at the very moment when the train is drawing out of the station and being unable to get on it. An even harder situation is to be on the platform in a good time for a train and still to see it go off without you. Such an experience befell a certain young girl the first time she was travelling alone. She entered the station twenty minutes before the train was due since her parents had impressed upon her that it would be unforgivable to miss it and cause the friends with whom she was going to stay to meet her. She gave her luggage to a porter and showed him her ticket. To her horror, he said that she was two hours too soon. She felt in her handbag, for the piece of paper on which her father had written down all the details of the journey and gave it to the porter. He agreed that a train did come into the station at the time on the paper and that it did stop, but only to take on water, not passengers. The girl asked to see a timetable, feeling sure that her father could not have made such a mistake. The porter went to fetch one and arrived back with the station master, who produced it with a flourish and pointed out a microscope 'o' beside the time of the arrival of the train at his station. This little 'o' indicated that the train only stopped for water. Just at that moment, the train came into the station. The girl, tears streaming down her face, begged to be allowed to slip into the guard's van. But the station master was adamant: rules could not be broken. And she had to watch that train disappear towards her destination while she was left behind.

1. Complete the sentence by choosing an appropriate option.

It is better to reach the platform before the train arrives because \_\_\_\_\_.

- You will have time to relax at the station
- It's good to waste some time in life
- It can help you avoid frustrations of work
- It's better than watching the train leave in front of your eyes

2. Comment on the writer's reference to the features of energetic and quick-minded people.

3. List the two ways which can hinder a punctual person from reaching a place on time.

(Clue: Think about the obstruction one may face)

4. Select the option that conveys a similar meaning of 'inflexible', in the passage.

1. Over-punctual
2. Energetic
3. Adamant
4. Abstruse

5. Find a word opposite in meaning to clear/obvious in the passage:

- I. community
- II. abstruse
- III. diversion
- IV. industrious

6. Reaching early may mean wasting a little time. Based on your understanding of the given passage, justify how reaching early does not always mean wasting time.

7. Why is it fair to say that punctuality necessary in a civilized society?

8. Complete the given sentence with an appropriate inference, with respect to the following:

Some friends of my family has this irritating habit of arriving half an hour too soon. We can deal with them by \_\_\_\_\_.

**Q3. Read the following passage carefully:**

The Great Wall of China was built to link existing fortifications to a united defence system and to keep invading Mongol tribes out of China. It is the largest man-made monument ever to have been built, and it is said that it is the only one visible from space. Many a thousand people must have given their lives to build this huge construction.

The current English name evolved from accounts of "the Chinese wall" from early modern European travellers. By the 19th century, "the Great Wall of China" had become standard in English, French, and German, although other European languages continue to refer to it as "the Chinese wall." However, none of the Europeans who visited Yuan China or Mongolia, such as Marco Polo, Giovanni da Pian del Carpine, William of Rubruck, Giovanni de' Marignolli and Odoric of Pordenone mentioned the Great Wall. The North African traveller Ibn Battuta also visited China during the Yuan dynasty ca. 1346, had heard about China's Great Wall, possibly before he had arrived in China. However, Ibn Battuta could find no one who either had seen it or knew of anyone who had seen it, suggesting that although there were remnants of the wall at that time, they were not significant. Soon after Europeans reached Ming China by ship in the early 16th century, accounts of the Great Wall started to circulate in Europe, even though no European was to see it for another century.

The Great Wall of China is built along an East-to-West line across the historical Northern borders of China to protect the Chinese states and empires against the raids and invasions of the various nomadic groups of the Eurasian Steppe with an eye to expansion. Before the use of bricks, the Great Wall was mainly built from rammed earth, stones, and wood. During the Ming, however, bricks were heavily used in many areas of the wall, as were materials such as tiles, lime and stone. Signal towers were built upon hill tops or other high points along the wall for their visibility. Wooden gates could be used as a trap against those going through. Barracks, stables, and armories were built near the wall's inner surface. Several walls were being built as early as the 7th century BC; these, later joined together and made bigger and stronger, are now collectively referred to as the Great Wall. Especially famous is the wall built (220-206 BC) by Qin Shi Huang, the first Emperor of China. Little of that wall has remained. Since then, the Great Wall has on and off been rebuilt, maintained and enhanced; the majority of the existing wall is from the Ming Dynasty (1368-1644). However, various square lookout towers that characterize the most famous images of the wall have disappeared. Many western sections of the wall are constructed from mud, rather than brick and stone, and thus are more susceptible to erosion. In 2014, a portion of the wall near the border of Liaoning and Hebei province was repaired with concrete. The work has been much criticized.

Other purposes of the Great Wall included border controls, allowing the imposition of duties on goods transported along the Silk Road, regulation or encouragement of trade and the control of immigration and emigration. Furthermore, the defensive characteristics of the Great Wall were enhanced by the construction of watch towers, troop barracks, garrison stations, signalling capabilities through the means of smoke or fire and the fact that the path of the Great Wall also served as a transportation corridor.

The Great Wall stretches from Dandong in the East to Lop Lake in the West, along with an arch that roughly delineates the Southern edge of Inner Mongolia. A comprehensive archaeological survey, using advanced technologies, has concluded that the Ming wall measure 8,850 km. This is made up of 6,259 km sections of actual wall, 359 km of trenches and 2,232 km of natural defensive barriers such as hills and rivers. Another archaeological survey found that the entire wall with all of its branches measures out to be 21,196 km.

King Zheng of Qin conquered the last of his opponents and unified China as the First Emperor of the Qin dynasty ("Qin Shi Huang") in 221 BC. Intending to impose centralized rule and prevent the resurgence of feudal lords, he ordered the destruction of some sections of the wall, however, he ordered the building of

new walls to connect the remaining fortifications along the empire's Northern frontier. Transporting a large number of materials required for construction was difficult, so builders always tried to use local resources. Stones from mountains were used over mountain ranges, while the earth was used for construction in plains.

The Great Wall concept was revived under the Ming dynasty in the 14th century, to gain a clear upper hand over the Mongolian tribes.

1. On the basis of your understanding of the above passage, make notes on it using headings and sub-headings. Use recognizable abbreviations (wherever necessary-minimum four) and a format you consider suitable. Also supply an appropriate title to it.

2. Write a summary of the passage in about 80 words. (8)

### Section B

**Q4. Rearrange the jumbled words and phrases into meaningful sentences. The first one has been done as an example. (3)**

Example: in / the highest / India has / population / livestock / the world

India has the highest livestock population in the world.

is / of milk / India / also / producer / the highest

is enduring / but / from a / major / it / crisis / fodder

due to / emerging / it / is / growing / population

more / Prime Minister / indian farmers / the / grow / to / fodder / is / The / buoying up

**Q5. Fill in the following blanks given below choosing the most appropriate options from the ones that follow. (2)**

Everyone is not in a position to \_\_\_\_ (a) \_\_\_\_ the family and start living in a \_\_\_\_ (b) \_\_\_\_ room \_\_\_\_ (c) \_\_\_\_ the banks \_\_\_\_ (d) \_\_\_\_ the Ganga.

(i) leave      (ii) leaver      (iii) tell      (iv) leaving

(i) small      (ii) smaller      (iii) smallest      (iv) little

(i) on      (ii) in      (iii) of      (iv) off

(i) in      (ii) of      (iii) on      (iv) off

**Q.6 Read the text carefully and answer the questions:**

Read the following dialogue and then complete the paragraph by choosing the correct options. Write your answers against the correct blank numbers. (2)

Rani: There's Mohan!

Ravi: Where?

Rani: He is lying under the umbrella near the coconut tree.

Ravi: Oh yes, I see him. He looks very comfortable. Let us leave him alone. Let's go for a sea ride.

Rani exclaimed with surprise that \_\_\_\_ (a) \_\_\_\_ . Ravi enquired \_\_\_\_ (b) \_\_\_\_ . Rani told Ravi that he \_\_\_\_ (c) \_\_\_\_ near the coconut tree. Ravi agreed that he could see Mohan who \_\_\_\_ (d) \_\_\_\_ . He suggested that they \_\_\_\_ (e) \_\_\_\_ Mohan alone. Ravi further suggested to \_\_\_\_ (f) \_\_\_\_ .

Rani exclaimed with surprise that \_\_\_\_ (a) \_\_\_\_ .

a) Mohan was there

b) Mohan is there

c) Mohan will be there

d) Mohan is going to be there

Ravi enquired \_\_\_\_ (b) \_\_\_\_.

- a) where he is
- b) where he had been
- c) where he will be
- d) where he was

Q7. The Directorate of Education, Orissa state is organizing an Essay Contest for all the students of the state. Prepare a suitable poster which can be sent to different schools for display on their notice board.

(3)

Or

You are Additional Commissioner, Traffic Police, Kolkata. Design a poster to create awareness about using helmets by two wheelers riders.

Q8. You want to sell your car as you are going abroad. Draft a suitable advertisement in not more than 50 words to be published in the classified columns of 'The Hindu'. Give necessary details of the car. You are Suman/Sushil, 21 Ram nagar, Delhi.

(3)

Or.

AK International School is looking for a receptionist for the school. Draft an advertisement on behalf of the Administrative Officer for the classified columns of the local newspaper.

Q9. Power shortage has become a norm even in the metropolitan cities. One way to face this situation is by preventing the wastage of power. Write a speech in 150-200 words on the importance of power in our daily life and how to save power at school and at home. Imagine that you are the Principal of your school.

(5)

Q10. Loudspeakers, bands etc create a lot of disturbance at all hours of day and night especially for students and for the sick. Write a debate in favour of or against the motion in 150-200 words. You are Saurabh/ Shobha.

(5)

### SECTION C

**Q11. Read the text carefully and answer the questions:.**

(3)

Yet have I killed

The seed I spent or sown it where

The land is his and none of mine?

We speak like strangers, there's no sign

Of understanding in the air.

This child is built to my design

Yet what he loves I cannot share.

i. What does the father feel in the given lines?

- a) That his son is responsible for the situation
- b) That he is responsible for the situation
- c) That no one can be blamed for the situation
- d) That he himself should correct the situation

ii. The child is built to my design means that

- a) they share their likes and dislikes
- b) they share an unbreakable bond
- c) they resemble each other
- d) their opinions are the same

iii. What is the rhyme scheme of the given lines?

- a) Abccbcb
- b) Abcabca
- c) Ababacc
- d) None of these

Or

Where did my childhood go?  
It went to some forgotten place,  
That's hidden in an infant's face,  
That's all I know.

i. What belief does the poet hold in the above Stanza?

1. That his childhood is lost forever.
2. That his childhood is hiding in the innocent face of an infant.
3. That his childhood is in his heart.
4. That he can bring back his childhood whenever he wants.

ii. What is the tone/ mood of the poet in the given lines?

1. Regret
2. Nostalgia
3. Confusion
4. Depressed

iii. What does the poet mean by 'that's' all I know?

1. He knew that only a child can only be innocent.
2. He knew that his childhood was lost forever.
3. He knew that the childhood innocence can only be seen in a baby's face.

**Q12. Read the text carefully and answer the questions:.**

**(3)**

I would tell her English words and little things of western science and learning, the law of gravity, Archimedes' Principle, the world being round, etc. This made her unhappy. She could not help me with my lessons. She did not believe in the things they taught at the English school and was distressed that there was no teaching about God and the scriptures.

i. Why grandmother of author could not help author with his lessons?

- a) she did not want to
- b) she did not know the subjects
- c) author did not want her to help him
- d) author did not talk to her

ii. According to the extract, which of the following were not told by the author to his grandmother

1. English words
2. French words
3. law of gravity
4. world being flat
5. energy conservation principles

a) 2, 4 and 5

b) 1, 3 and 5

c) 2, 5 and 4

d) 1, 4 and 3

iii. Grandmother was unhappy with school because of

- a) no teaching about God
- b) no teaching about scriptures
- c) no teaching about God and no teaching about scriptures
- d) none of these

Or.

We had survived for 15 hours since the wave hit, but Wavewalker wouldn't hold together long enough for us to reach Australia. I checked our charts and calculated that there were two small Islands a few km to the east. One of them Ile Amsterdam, was a French scientific base. Our only hope was to reach the pinpricks in

the vast Ocean. But unless the wind and seas abated so we could hoist sail, our chances would be slim indeed. The great wave had put our auxiliary engine out of the action.

i. The 'pinpricks in the vast Ocean ' refers to....

1. Boats
2. Occupants of the boat
3. Continents
4. Two small Islands

ii. Why does the narrator of the given lines say that "our chances will be slim"?

1. They will all die due to cold.
2. Their ship will sink because of the damage.
3. The weather was worsening while they were sinking.
4. They were all badly injured.

iii. What happened to Wavewalker?

1. It's damaged due to storm
2. It got sinked
3. It is got robbed.

**Q13. .Read the text carefully and answer the questions:.**

**4**

This was the wonderful part.

In the second place, we were poor.

This was the part that wouldn't permit me to believe what I saw.

We were poor. We had no money. Our whole tribe was poverty-stricken. Every branch of the Garoghlanian family was living in the most amazing and comical poverty in the world. Nobody could understand where we ever got money enough to keep us with food in our bellies, not even the old men of the family.

i. This was a wonderful part. Here, this refers to:

- a) his cousin Mourad sneaking in his house
- b) his desire to own a horse getting fulfilled
- c) his cousin Mourad with a horse
- d) his desire to ride a horse getting fulfilled

ii. Why couldn't the narrator believe what he saw?

- a) No one in their family-owned a horse.
- b) No one in the family could afford a horse.
- c) No one from their family would steal a horse.
- d) No one knew about the horse.

iii. When the narrators of the given lines says that Garoghlanian family was living in the most amazing and comical poverty in the world, his tone is:

- a)Sarcastic
- b)Suspicious
- c)Humorous
- d)Serious

Or

A few miners were already in the streets: the first of the night shift moving out. As Andrew walked with them, spent and slow, his footfalls echoing with the others under the morning sky, he kept thinking blindly, obviously to all other work he had done in Blaenelly, "I've done something: oh, God I have done something real at last."

i. Why were the miners in the street?

1. Their night shift had just finished
2. They were going for their shift.

3. They were out to look for some other work.

4. They had gathered for a protest.

ii. Why was Andrew oblivious to all other work he had done in Blaenelly?

1. Because he was very tired.

2. Because he was worried about his future.

3. Because he was talking to the miners.

4. Because he was thinking about the two lives he had just saved.

• Only 1

• 1 and 2

• Only 3

• Only 4

iii. "I've done something real at last". What is Andrew referring to?

1. His marriage with Catherine

2. His success at saving the mother and the stillborn child

3. His promotion

iv. The money he earned from the last visit.

Write down the synonym of 'obviously'.

**Q13. Answer any two questions:-**

**(6)**

1. What do you learn about the salt lake on the other side of the pass?

2. What moment does the photograph in the poem 'A Photograph' depict?

3. Why does the rain call itself 'impalpable' in the poem. 'voice of the rain'?

4. How is the tree transformed during the bird's visit in the poem ' Laburnum Top'?

**Q14. Answer this question.**

**(3)**

What makes the narrator to Mrs. Dorlings house twice? What was her experience there? Answer in the context of The Address.

**Q15. Answer any one question**

Satire can be an effective tool for social reform. Keeping the chapter The Tale of Melon City in mind, express your views on the above statement.

**(6)**

Or

Today a women shoulders all the household responsibilities as well as having to often work outside, but she is still exploited by the family members. Based on the chapter 'Mother's Day' and your own ideas, explain what changes are required in society to set this right.

Q 16. How did Rajendra Deshpande apply his theory of catastrophic experience regarding the Battle of Panipat?

**(6)**

Or

Describe the family lineage of King Tut. What changes did he bring about in his regin?