TS POLYCET 2026

Question Paper (Memory-Based) PDF

Conducted by SBTET, Telangana

General Instructions

(i) **Duration:** The total duration of the examination is 150 minutes.

(ii) **Total Marks:** The complete paper carries a maximum of 150 marks.

(iii) Each question has four options. Only **one** option is correct.

(iv) **Right Answer:** +1 mark for each correct answer.

(v) **Incorrect Answer:** (No Negative marking).

1. Which of the following mirror is used by a dentist to examine a patient's teeth?

(A) Plane mirror

(B) Convex mirror

(C) Concave mirror

(D) None of the above

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2. The geometric center of a spherical mirror is called:

(A) Focus

(B) Pole

(C) Magnification

(D) Center of curvature

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3. We get a diminished image with a concave mirror when the object is placed:

(A) At focus

(B) Between the pole and focus

(C) At the center of curvature

(D) Beyond center of curvature

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4. If the radius of curvature of a spherical mirror is 16 cm, then the focal length of the mirror is:

(A) 16 cm

(B) 8 cm

(C) 24 cm

(D) 32 cm

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5. When a convex lens is placed in water, its focal length:

(A) Increases

(B) Decreases

(C) Does not change

(D) None of the above

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6. A spherical aggregate of a soap molecule in water is called:

(A) Hydrophilic end

(B) Hydrophobic end

(C) Micelle

(D) Cation

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7. Best conductor of electricity is:

(A) Graphite

(B) Graphene

(C) Diamond

(D) Nanotube

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8. sp^3 Hybridization is found in:

(A) CH_4

(B) C_2H_2

(C) C_2H_4

(D) C_2H_6

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9. Glycerol is _____

(A) $CH_2OH-CHOH-CH_2$

(B) $CH_2OH-CH_2OH-CHOH$

(C) $C_{17}H_{35}COONa$

(D) $CH_2OH-CHOH-CH_2OH$

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10. The structure for 3-amino-2-bromo-hexan-1-ol is:

(A) $CH_3-CH_2-CH_2-CH(NH_2)-CH(Br)-CH_2OH$

(B) $CH_2OH-CH(Br)-CH(NH_2)-CH_2-CH_2-CH_3$

(C) $CH_3-CH(Br)-CH_2-CH(NH_2)-CH_2-CH_2OH$

(D) None

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11. $5+\sqrt{7}$ is:

(A) An irrational number

(B) A rational number

(C) An integer

(D) A natural number

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12. If $3^x=9^{x-1}$, then the value of x is:

(A) 2

(B) 3

(C) 4

(D) 5

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13. If x, y, and z are distinct prime numbers, then the HCF of x^2y^3z and x^3yz^2 is:

(A) x^3yz^2

(B) x^2y^3z

(C) xy^3z

(D) x^2yz

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14. LCM of 9, 12, and 15 is:

(A) 15

(B) 30

(C) 45

(D) 180

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15. The value of $\log_3 81$ is:

(A) 4

(B) 1

(C) 2

(D) 3
