



प्रदेश लोक सेवा आयोग

Key (B)

सुदूरपश्चिम प्रदेश

प्रदेश निजामती सेवा अन्तर्गत इञ्जिनियरिङ सेवा, सिभिल समूह, जनरल/स्यानिटरी/इरिगेसन उपसमूह, पाँचौं तह, सब इन्जिनियर पदको आ.प्र. तथा खुला प्रतियोगितात्मक लिखित परीक्षा

परीक्षा मिति: २०८२।१०।१०

समय :- ४५ मिनेट

पूर्णाङ्क :- १००

विषय :- सेवा सम्बन्धी

वस्तुगत बहुविकल्पीक (५० प्रश्न × २ अङ्क)

उत्तरपुस्तिकामा प्रश्नपत्रको Key अनिवार्य रूपले उल्लेख गर्नुपर्नेछ । उल्लेख नगरेमा उत्तरपुस्तिका रद्द हुनेछ । साथै परीक्षामा Calculator, Mobile जस्ता विद्युतीय उपकरणहरु प्रयोग गर्न पाइने छैन ।

1. What is the purpose of stirrups in reinforced concrete beams?  
(A) To resist bending moment  
(B) To increase weight of the beam  
(C) To resist shear force and hold main bars  
(D) To reduce deflection
2. The minimum number of main steel bars provided in R.C.C. circular column is:  
(A) 4 (B) 8 (C) 6 (D) None of the above
3. Maximum spacing of shear reinforcement measured along the axis of the beam for vertical stirrups shall be:  
(A) 0.75 d or 450 mm whichever is less  
(B) 0.75 d or 450 mm whichever is more  
(C) 0.60 d or 450 mm whichever is less  
(D) 0.60 d or 450 mm whichever is more
4. In a simply supported rectangular beam carrying UDL, the spacing of vertical stirrups is:  
(A) Kept constant throughout the length (B) Increase at the ends  
(C) Increased towards the center of the beam (D) All of the above
5. The earth pressure in the retaining wall is:  
(A) Proportional to square of depth  
(B) Proportional to internal friction of the soil  
(C) Proportional to depth  
(D) Maximum of earth retained
6. Which of the following statements is /are true regarding soil compaction?  
(a) Compaction increases the strength of soil.  
(b) Optimum moisture content (OMC) is the moisture at which maximum dry density is obtained.  
(c) Compaction reduces soil permeability  
(d) Compaction is only necessary for clayey soils.  
(A) (a) and (b) only (B) (a), (b) and (c) only  
(C) (a) and (d) only (D) All of the above
7. The ratio of the volume of voids to the volume of soil solids in a given soil mass, is known:  
(A) Porosity (B) Specific gravity (C) Void ratio (D) Water content
8. The property of soil which allows to flow water through the soil is known as:  
(A) Viscosity (B) Fluidity (C) Permeability (D) Capillary
9. The atmospheric pressure at sea level (above absolute zero) is called.....  
(A) Normal pressure (B) Standard atmospheric pressure  
(C) Air pressure (D) Barometric pressure

Contd.....





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10. The upper surface of the notch over which water flows is known as:  
(A) Sill (B) Nappe (C) Vein (D) All of the above
11. Unit of Kinematic viscosity is:  
(A)  $\text{m}^2/\text{sec}$  (B)  $\text{Newton sec}/\text{m}^2$  (C)  $\text{Newton sec}/\text{m}^3$  (D)  $\text{Kg sec}/\text{m}^2$
12. In the equation  $\frac{p}{\rho g} + \frac{v^2}{2g} + h = c$ ,  $\frac{v^2}{2g}$  denotes?  
(A) Potential head (B) Kinetic head (C) Static head (D) Datum head
13. According to Euler's theory, the buckling load of a long column (strut) is inversely proportional to:  
(A) Length (B) Square of the length  
(C) Cross-sectional area (D) Young's modulus
14. The property of material by which a body returns to its original shape after removal of the force is called:  
(A) Ductility (B) Plasticity (C) Elasticity (D) Malleability
15. A structural member, subjected to an axial compressive force is called a:  
(A) Column (B) Strut (C) Both (A) and (B) (D) None of the above
16. Which of the following materials is commonly used in road construction for binding aggregates?  
(A) Cement (B) Lime (C) Bitumen (D) Sand
17. The maximum % of ingredient is cement is that of:  
(A) Lime (B) Alumina (C) Silica (D) Gypsum
18. The ingredient which gives the desired colour to a paint is called:  
(A) Vehicle (B) Base (C) Solvent (D) Pigment
19. The bond in the brick masonry having one course of stretcher only & a course of header about it is called:  
(A) Stretcher bond (B) Header bond (C) Flemish bond (D) English bond
20. In plane table surveying, which of the following is used to sight and draw lines?  
(A) Alidade (B) Staff (C) Chain (D) Level tube
21. What is the main purpose of surveying?  
(A) To estimate the cost of construction (B) To determine the strength of materials  
(C) To prepare maps and plans for engineering projects (D) To test soil samples
22. When several contours coincide, it indicates:  
(A) a vertical cliff (B) a valley (C) a saddle (D) an overhanging
23. In building construction technology, "piles" are a type of:  
(A) Vertical beam (B) Deep foundation (C) Disease (D) Scaffolding
24. स्थानीय सरकार सञ्चालन ऐन, २०७४ अनुसार स्थानीय तहको कार्यकारी प्रमुख को हुन्छन् ?  
(A) वडा अध्यक्ष (B) प्रमुख प्रशासकीय अधिकृत  
(C) नगर प्रमुख वा गाउँपालिका अध्यक्ष (D) प्रदेश प्रमुख
25. Which of the following will be the chief administrative officer of the Sudurpashchim Provincial Government?  
(A) Chief secretary of Federal Government  
(B) Chief secretary of Provincial Government  
(C) Secretary of MoPID  
(D) None of the above
26. Time and progress chart of construction is also known as.....  
(A) Bar chart (B) Giant chart  
(C) Modified milestone chart (D) Critical path method chart

Contd...





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27. Which of the following is not a common type of construction contract?  
(A) Lump sum contract (B) Cost plus percentage contract  
(C) Force account contract (D) Open tender contract
28. Who makes the final decision on planning of the project?  
(A) Contractor (B) Engineer (C) Owner (D) All of the above
29. During storage of cement the bag of cement should be kept.....cm apart from the wall:  
(A) 10 cm (B) 20 cm (C) 30 cm (D) 40 cm
30. Bar chart are suitable for:  
(A) Large projects (B) Minor projects (C) Major projects (D) All of the above
31. The present value of a property considering depreciation and life span is called:  
(A) Salvage value (B) Scrap value (C) Book value (D) Market value
32. The number of standard Nepalese machines made bricks required to make  $1\text{m}^3$  of masonry of is.....  
(A) 560 (B) 500 (C) 480 (D) 530
33. The unit of payment for AC sheet roofing is in:  
(A) m (B) Sq. m (C) Cu. m (D) Metric ton
34. A detailed description of the design and materials used to construct something is known as:  
(A) Bid document (B) Bill of quantities (C) Cost estimates (D) Specification
35. Which of the following roads is classified as a National Highway in Nepal?  
(A) A road that connects district headquarters  
(B) A road that connects two municipalities  
(C) A road that connects international borders or provinces  
(D) A road inside a village development area
36. The top of the ground on which the foundation of a road rests is called:  
(A) Sub grade (B) Soling (C) Base (D) Wearing layer
37. For SSTB "D" type (suspended) bridge permissible height difference (h) of both bank shaddle points is:  
(A)  $L/20$  (B)  $L/25$  (C)  $L/10$  (D)  $L/8$
- Where, L is span of the bridge.
38. In road construction, Rolling starts from:  
(A) Centre towards the edge  
(B) Edge to Centre  
(C) From one edge to another edge  
(D) Edges toward the Centre with an overlap of minimum 30 cm
39. If 1 cumec of water irrigates 2000 hectares of land during the base period, the duty is:  
(A) 864 hectares/cumec (B) 1000 hectares/cumec  
(C) 2000 hectares/cumec (D) 432 hectares/cumec
40. The process of silt deposition continuous over long periods of time, resulting in the formation of soil is called:  
(A) Alluvial soil (B) Non-alluvial soil  
(C) Boulder mix (D) Black cotton soil
41. Self- cleansing velocity is:  
(A) Velocity at dry weather flow  
(B) Velocity of water at flushing  
(C) Velocity at which no accumulation remains in the drains  
(D) Velocity of water in a pressure filter

Contd.





[B-4]

The science which deals about method & techniques to supplement water from tilling to harvesting of crops is known as:

- (A) Water supply      (B) Irrigation      (C) Water flow      (D) Open channel flow
43. Which of the following is the most commonly used disinfectant in public water supply systems?  
(A) Alum      (B) Bleaching powder  
(C) Chlorine      (D) Potassium permanganate
44. Per capita demand of water is calculated in liters:  
(A) Per person per day      (B) Per person per month  
(C) Per person per year      (D) None of the above
45. The vertical wells provided along the banks of a river to draw ground water in dry season are called:  
(A) Artesian wells      (B) Tube wells      (C) Infiltration wells      (D) Open wells
46. A Sanitary sewer is expected to run:  
(A)  $\frac{1}{3}$  full      (B)  $\frac{1}{2}$  full      (C)  $\frac{2}{3}$  full      (D) Full
47. The design shear stress in reinforced cement concrete depends on .....  
(A) Characteristic strength of concrete  
(B) Percentage of longitudinal tensile reinforcement  
(C) Increased at the ends  
(D) Increased at the center of the beam
48. Which of the following foundations is best suited for loose, sandy soil where the load is to be spread over a large area?  
(A) Pile foundation      (B) Raft foundation  
(C) Isolated footing      (D) Grillage foundation
49. Slump test is a measure of:  
(A) Impact value      (B) Tensile strength  
(C) Consistency      (D) Compressive strength
50. In any stair case, which is best condition?  
(A)  $T = R - 1$       (B)  $R = T - 1$       (C)  $T = R$       (D) None of the above
- Where, T = number of treads. R = number of risers

«««The End»»»

