



निम्न प्रश्नहरूको उत्तर Section अनुसार छुट्टाछुट्टै उत्तरपुस्तिका मा लेख्नुपर्नेछ।

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Section – A

50 Marks

1. What is surveying? Explain the factors to be considered in selecting suitable method of surveying. 1+4=5
2. Describe the formation of stones and explain their use in civil engineering construction in Nepal. 2.5+2.5=5
3. A 1-meter-long cantilever beam is loaded with 100 kg point load at its free end. Calculate shear force and bending moment at its fixed end and draw a free hand sketch. 2.5+2.5=5
4. Define Kinetic and Potential energy of water in a pipeline with the help of a hand-drawn diagram. 5
5. What is permeability of soil? Mention the factors affecting permeability. 5
6. Why do we provide doubly reinforced beam? Write a note on doubly reinforced beam depicting its merits and demerits. 2.5+2.5=5
7. Discuss the characteristics of pipe flow and open channel flow. Compare both types of flow based on parameters such as pressure, velocity distribution and flow behaviour. 5+5=10
8. Explain in detail the factors affecting strength of concrete. 10

Section – B

50 Marks

9. What are the sources of dampness and remedial measures to prevent dampness? 5
10. What is a septic tank? Explain its function and safety needed during its construction and operation. 1.5+3.5=5
11. What is super elevation and why do we provide it in a highway? Why is super elevation different from Camber? 3+2=5
12. Explain the concept of construction management. Discuss its objectives in achieving time, cost and quality control in construction projects. 2+3=5
13. What are the duties and responsibilities of a Civil Sub Engineer? Write. 3+2=5
14. What are the factors that we need to keep in mind while selecting location of a headworks? 5
15. Describe in detail how roads are classified on different bases in Nepal. Also, explain the terminology "passenger car unit" or PCU in short; and give the PCU of all the vehicle types. 7+1+2=10
16. Define Optimum Moisture Content (OMC). And explain the relationship between dry density and moisture content of soil with a suitable curve. 2+8=10

«The End»

$$fd = \frac{r}{1+w}$$

$$G = \frac{G_{max}}{1+w}$$



Key (D)

समय: ४५ मिनेट

पूर्णाङ्क: १००

विषय: सामान्य ज्ञान र सार्वजनिक व्यवस्थापन सेवा सम्बन्धित कार्य-ज्ञान

वस्तुगत बहुवैकल्पिक (५० प्रश्न × २ अंक = १०० अंक)

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

- जिल्ला स्थित सरकारी कार्यालयहरूको अन्तिम लेखापरीक्षण कसले गर्छ ?
(A) महालेखापरीक्षक (B) महालेखा नियन्त्रक कार्यालय
(C) कोष तथा लेखा नियन्त्रक कार्यालय (D) अर्थ मन्त्रालय
- तलका मध्ये कुन सिद्धान्त सार्वजनिक सेवा प्रवाहको सिद्धान्त अन्तर्गत पर्दैन ?
(A) मितव्ययिता र प्रभावकारिता (B) गुणस्तरीयता (C) पहुँच र सहभागिता (D) छनौटको सीमितता
- अन्तर्राष्ट्रिय मानव अधिकार दिवस कहिले मनाइन्छ ?
(A) डिसेम्बर १० (B) सेप्टेम्बर ५ (C) अक्टोबर १० (D) जुन ५
- संगठनका विभिन्न अङ्ग, इकाई र कार्यहरूबीच एकरूपता कायम गर्ने प्रक्रियालाई के भनिन्छ ?
(A) योजना (B) नियन्त्रण (C) निर्देशन (D) समन्वय
- निजामती कर्मचारीले सेवाग्राहीप्रति अवलम्बन गर्ने असल व्यवहार र आचरण तलका मध्ये केसँग बढी सम्बन्धित हुन्छ ?
(A) मानवीय मूल्य र मान्यता (B) दायित्व (C) कर्तव्य (D) सोच
- In airport maintenance, 'FOD' stands for
(A) Flight Operational Department (B) Foreign Object Debris
(C) Fuel Oil Distribution (D) Fixed Obstacle Detection
- What is the term for the area where aircrafts are parked for passengers boarding in an airport?
(A) Taxiway (B) Hangar (C) Apron (D) Terminal Building
- The relationship between owner, contractor and engineer is mainly based on
(A) friendship (B) contract agreement (C) personal trust (D) labour supply
- In maintaining safety at work sites PPE stands for
(A) Project Person's Equipments (B) Project Protection Equipments
(C) Personal Protection Equipments (D) Professional Protection Equipments
- The main purpose of rate analysis is .
(A) to find actual cost per unit item (B) to find economic value of material
(C) to find the risk in the project (D) none of the above
- The value of a property at the end of its useful life without being dismantled is known as
(A) salvage value (B) scrap value (C) book value (D) market value
- Which of the following premix methods is commonly used for base course construction?
(A) Bituminous carpet (B) Mastic asphalt
(C) Sheet asphalt (D) Bituminous bound macadam



- The transverse slope provided to the carriageway for drainage, safety and structure integrity is called ...
 (A) super elevation (B) camber (C) transverse curve (D) gradient
14. What does 'n' represent in Manning's formula $V = (1/n) \cdot R^{2/3} \cdot S^{1/2}$ for velocity?
 (A) Manning's Rugosity Coefficient (B) Manning's flow constant
 (C) Manning's depth Coefficient (D) Manning's hyperbolic ratio
15. The most effective and common method to minimize seepage losses in irrigation canal is
 (A) increasing the canal velocity (B) canal lining
 (C) increasing the canal cross-section (D) reducing the length of the canal
16. The primary function of a septic tank is:
 (A) aerobic digestion only (B) sedimentation and anaerobic digestion
 (C) primary treatment of sewage by disinfection (D) secondary treatment of waste-water
17. What is the common design period for a rural water supply scheme?
 (A) 5-10 years (B) 15-20 years (C) 25-30 years (D) 35-40 years
18. A triple joist timber floor is normally provided, when the shorter span of the room is more than ...
 (A) 5.5m (B) 6.5m (C) 7.5m (D) 8.5m
19. Which of these are the external sources of dampness?
 (A) Construction moisture (B) Leaking service (C) Condensation (D) Precipitation
20. If a RC beam or slab fails suddenly without warning due to overloading that is an indication that the design of the structural member was:
 (A) a balanced one (B) an over-reinforced
 (C) an under-reinforced (D) without consideration of adding plasticizer admixture while mixing concrete
21. The deciding factor for classifying a column as short or long is:
 (A) load on column (B) slenderness ratio (C) area of steel (D) type of cement
22. Which of the following is cohesion-less soil?
 (A) Clay (B) Silt (C) Peat (D) Sand
23. In a retaining wall Passive Earth Pressure is
 (A) Pressure exerted to retaining wall stem by overburden soil
 (B) Pressure exerted to retaining wall by foundation soil from beneath the retaining wall
 (C) Pressure exerted to retaining wall from the heel (Back) of the retaining wall
 (D) Pressure exerted to retaining wall from the toe (Front) of the retaining wall
24. A notch is generally used for measuring discharge in:
 (A) large pipes (B) open channels (C) closed tanks (D) underground pipes
25. Pascal's law states that pressure in a fluid at rest is
 (A) transmitted equally in all direction (B) dependent on the shape of the container
 (C) higher at the top (D) only acting downwards
26. A Triangular notches is most suitable for measuring
 (A) large discharges (B) small discharges with high accuracy
 (C) only rectangular channels (D) high-velocity flows



नेपाल इन्जिनियरिङ सेवा, सिविल समूह अन्तर्गत जनरल, हाइवे, इरिगेशन, इयानीटी, हाइड्रोलाजी उपग्रुह, राजपत्र अनधिकृत प्रयोग नगर्नु (प्राविधिक)

If a cantilever beam carries a uniformly distributed load over its entire length, then shapes of shear-force diagram and bending-moment diagram respectively are

- (A) quadratic parabola and cubic parabola
(B) triangle and quadratic parabola
(C) triangle and rectangle
(D) quadratic parabola and triangle

28. The maximum bending moment in a simply supported beam of length 'L' loaded by a concentrated load 'W' at the mid-point is given by

- (A) $WL/8$
(B) $WL/4$
(C) $WL/2$
(D) WL

29. "Wherever the force goes, there I am."

Which parameter related distribution or diagram of the strength of material is the above statement most applicable to?

- (A) twisting moment distribution
(B) bending moment diagram
(C) shear force diagram
(D) bending stress distribution

30. Turpentine, which is used as a solvent in oil-based paints comes primarily from:

- (A) petrochemical industries
(B) pine trees
(C) eucalyptus trees
(D) synthesis of different derivatives of bituminous products

31. Jhama bricks can be used

- (A) in the foundation of structures
(B) in the outer walls of structures
(C) in the partition walls of the structures
(D) in the beams of structures

32. Which of the following paint is highly resistant to fire?

- (A) Aluminum paint
(B) Asbestos paint
(C) Cement paint
(D) Enamel paint

33. What is the standard 'Least count' of a common metric levelling staff?

- (A) 1 mm
(B) 5 mm
(C) 1 cm
(D) 0.5 mm

34. The method of plane tabling generally adopted to obtain details and plotting inaccessible points is

- (A) intersection
(B) radiation
(C) resection
(D) none of the above

35. The main principle of surveying is to work from

- (A) whole to part
(B) part to whole
(C) lower level to higher level
(D) higher level to lower level

36. सबैभन्दा घेरै वन क्षेत्र भएको प्रदेश कुन हो ?

- (A) सुदूरपश्चिम
(B) मधेश
(C) कर्णाली
(D) गण्डकी

37. नेपालको इतिहासमा उल्लेख भए अनुसार 'परम भट्टारक' को प्रसिद्धि पाउने राजा को थिए ?

- (A) अंशुवर्मा
(B) मानदेव
(C) मरेन्द्रदेव
(D) जयदेव

38. सोहीँ आवधिक योजनाको अन्त्यसम्ममा प्रति व्यक्ति आय कति अमेरिकी डलर पुर्‍याउने लक्ष्य राखिएको छ ?

- (A) 2351
(B) 2315
(C) 2311
(D) 2355

39. राष्ट्रिय जनगणना, 2078 अनुसार नेपालको जनसंख्या बढिरू कति प्रतिशत रहेको छ ?

- (A) 1.94
(B) 2.1
(C) 0.92
(D) 0.95

40. ओजोनतह विनाश गर्ने प्रमुख कारक तत्व कुन हो ?

- (A) जलवायु परिवर्तन
(B) हरित कार्बन
(C) नाइट्रोजन ग्याँस
(D) क्लोरो फ्लोरो कार्बन

41. आयोडिनको कमीले कुन रोग लाग्दछ ?

- (A) स्कर्भी
(B) गलगौण
(C) रतन्धो
(D) बेरीबेरी

42. नेपालको संविधान नेपालको मूल कानून हो । यस संविधानको पालना गर्नु प्रत्येक व्यक्तिको ... हुन्छ ।

- (A) अधिकार
(B) कर्तव्य
(C) दायित्व
(D) अधिकार र कर्तव्य



संयुक्त राष्ट्रसंघको विशिष्टीकृत संस्था निम्न मध्ये कुन होइन ?

- (A) विश्व पर्यटन संगठन (B) विश्व मौसम विज्ञान संगठन (C) विश्व कृषि संगठन (D) खाद्य तथा कृषि संगठन

44. क्षेत्रफलका हिसाबले सार्क (SAARC) राष्ट्रहरू मध्ये नेपाल कतिऔं ठूलो राष्ट्र हो ?

- (A) पाचौं (B) चौथो (C) छैटौं (D) सातौं

45. सन् 2026 मार्च 22 मा मनाइएको विश्व पानी दिवसमा नेपालले तय गरेको नारा कुन हो ?

- (A) सबैका लागि पानी (B) पानी र लैङ्गिक समानता (C) शान्ति र समृद्धिका लागि पानी (D) पानीको संरक्षण

46. सार्वजनिक निकायमा रहने अभिलेखहरूलाई सुरक्षित राख्ने अवधिबोधको सम्बन्धको बारेमा अध्ययन गरी सही विकल्प छान्नुहोस्।

अभिलेख

सुरक्षित राख्ने अवधि

- (अ) अतिमहत्वपूर्ण (i) 10-20 वर्षसम्म सुरक्षित राख्नुपर्ने।
(आ) महत्वपूर्ण (ii) सामान्यतया 1 वर्षसम्म सुरक्षित राख्नुपर्ने।
(इ) उपयोगी (iii) 1-10 वर्षसम्म सुरक्षित राख्नुपर्ने।
(ई) कम उपयोगी (iv) कहिल्यै नष्ट गर्न नहुने।

- (A) अ-iv, आ-ii, इ-i, ई-iii (B) अ-iv, आ-i, इ-iii, ई-ii (C) अ-iv, आ-iii, इ-i, ई-ii (D) अ-i, आ-ii, इ-iii, ई-iv

47. कर्मचारीको सरुवासम्बन्धी गुनासो व्यवस्थापनको मुख्य उद्देश्य के हो ?

- (A) कर्मचारीलाई सजाय दिनु (B) विवाद समाधान र समन्यायको सुनिश्चितता गर्नु
(C) प्रक्रियागत ढिलाई हुन नदिनु (D) सरुवा यथास्थितिमा राख्नु

48. निजामती सेवा ऐन, 2049 (संशोधन सहित) अनुसार निजामती कर्मचारी बढुवाका लागि सम्भाव्य उम्मेदवार हुन पाउने अवस्था तलका मध्ये कुन हो ?

- (A) पेशी र बेरुजु फछ्यौट नगरेको अवधिभर (B) निलम्बन भएको अवधिभर
(C) बढुवा रोक्का भएको अवधिभर (D) तलब वृद्धि रोक्का भएको अवधिभर

49. नेपालमा कर्मचारी प्रशासनसम्बन्धी केन्द्रीय निकायको रूपमा काम गर्ने निकाय कुन हो ?

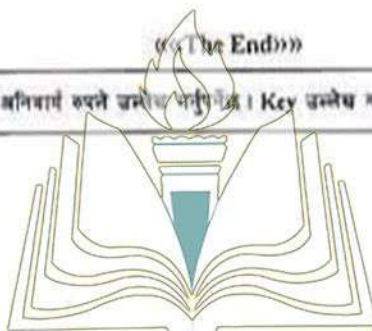
- (A) लोक सेवा आयोग (B) प्रधानमन्त्री तथा मन्त्रिपरिषद्को कार्यालय
(C) सङ्घीय मामिला तथा सामान्य प्रशासन मन्त्रालय (D) गृह मन्त्रालय

50. संवैधानिक निकायका पदाधिकारीको पदावधि कति वर्षको हुन्छ ?

- (A) 5 वर्ष (B) 6 वर्ष (C) 4 वर्ष (D) 7 वर्ष

«The End»»

उत्तरपुस्तिकामा प्रश्नपत्रको Key अनिवार्य रूपले उल्लेख गर्नुपर्नेछ। Key उल्लेख नगरेमा उत्तरपुस्तिका रद्द हुनेछ।



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