

नेपाल नागरिक उड्डयन प्राधिकरण
प्राविधिक, ईलेक्ट्रिकल ईन्जिनियरिङ्ग, पाँचौ, बरिष्ठ सहायक पदको
नमूना प्रश्नपत्र

पत्र: प्रथम

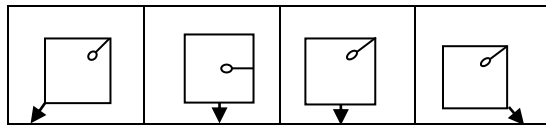
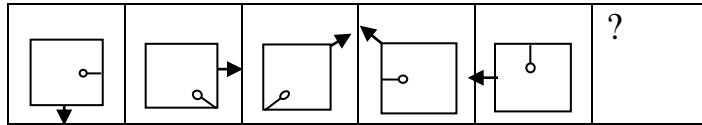
समय: ४५ मिनेट

पूर्णाङ्क : १००

विषय : वस्तुगत बहुउत्तर (सामान्यज्ञान, बौद्धिक परीक्षण र सेवा सम्बन्धी, ५०×२)

1. नेपालले सर्वप्रथम हवाई सुरुभौता गरेको मुलुक कुन हो ?
A. भारत
B. चीन
C. बंगलादेश
D. थाइलैण्ड
2. निम्न लिखित मध्ये कसले "POSDCORB" भन्ने शब्दावलीको प्रयोग गरेका थिए ?
A. एल डी ह्वाइट
B. डोनाल्ड किंगसले
C. लुथर गुलिक
D. रवर्ट ए साइमन
3. नेपाल नागरिक उड्डयन प्राधिकरणको स्थापना कहिले भयो ?
A. २०५७/८/२७
B. २०५७/९/१
C. २०५८/८/२७
D. २०५५/८/२७
4. नेपालमा कहिलेबाट Flight Information Center (FIC) को स्थापना गरियो ?
A. सन् १९७५
B. सन् १९७६
C. सन् १९७७
D. सन् १९७८
5. विवाहमा सिन्दुर साटासाट गर्ने चलन कुन जातिमा छ ?
A. भाँगाँड
B. राँगाँड
C. सतार
D. मुसहर
6. नेपालमा हिमरेखाको सबभन्दा तल्लो भाग कुन हो ?
A. रुपनाला (गोरखा)
B. गोबरकाढा (सुर्खेत)
C. माझा (कालिकोट)
D. जुम्ला
7. राष्ट्रिय जनगणना, २०६८ अनुसार महिला परिवालमूली रहेको परिवार प्रतिशत कुन हो ?
A. २५.७३%
B. २५.१० %
C. २५.५३ %
D. २५.१५ %
8. कार्यालयमा पत्राचार गर्दा अन्य निकायलाई बोधार्थ दिनुपरेमा पत्रको कुन भागमा लेखिन्छ ?
A. दायाँ माथिल्लो
B. दायाँ तल्लो
C. बायाँ माथिल्लो
D. बायाँ तल्लो
9. प्रसिद्ध खेलाडी "बैकुण्ठ मानन्धर" कुन खेलसँग सम्बन्धित ?
A. बक्सिङ्ग
B. दौड
C. कराँते
D. घोडचढी
10. विश्व बैंकको प्रधान कार्यालय कहाँ रहेको छ ?
A. वाशिङ्गटन डि.सी.
B. न्यूयोर्क
C. पेरिस
D. जेनेभा

- 11 नेपाल र जापानबीच कहिले दौत्य सम्बन्ध कायम भएको थियो ?
 A. सन् १९५५ B. सन् १९५६ C. सन् १९६० D. सन् १९६१
- 12 नयाँ विमानस्थलका लागि कार्य भएका क्षेत्रहरूमध्ये तलको कुन ठीक होईन ?
 A. गुल्मी B. इलाम C. ओखलढुङ्गा D. डोल्पा
- 13 द्वितीय विश्वयुद्धका विभिन्न कारणहरू मध्ये तलको कुन महत्वपूर्ण हो ?
 A. जर्मनले फ्रान्समाथि गरेको अतिक्रमण B. पेरिस र भर्सेलजको दुष्परिणाम
 C. बेलायत र अमेरिकाको शीत युद्ध D. जर्मनको साम्राज्यवाद नीति
- 14 दक्षिण एसियाली क्षेत्रीय सहयोग संगठन (SAAECA) का विभिन्न अंगहरूमध्ये तलको कुन ठीक होईन ?
 A. सार्क प्रविधि समिति B. सार्क स्थायी समिति
 C. सार्क कार्यक्रम समिति D. सार्क सचिवालय
- 15 नेपालको विराटनगर एयरपोर्ट धावनमार्गको विस्तारका लागि सहयोग गर्ने राष्ट्र कुन हो ?
 A. संयुक्त राज्य अमेरिका B. बेलायत C. जापान D. चीन
- 16 'Reading' is related to 'Knowledge' in the same way as 'Work' is related to :
 A. Money B. Engagement C. Employment D. Experience
- 17 If the TABLE is coded as UACMET in a certain language, then how is CAPSULE written in that code?
 A. BAORUKE B. DAQTUME C. BAQRUKE D. DAOTUME
- 18 Choose the word which is different from the rest.
 A. Anger B. Anxiety C. Feeling D. Joy
- 19 Find out the alternative which will replace the question mark.
 A. E B. N C. O D. T
- 20 Which figure should replace the question mark?



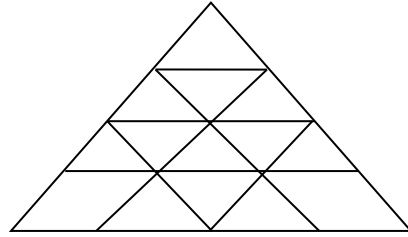
A

B

C

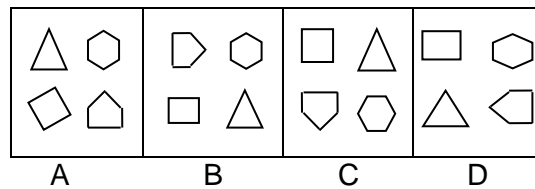
D

21 What is the total number of triangles in the below grid?



- A. 22 B. 23 C. 26 D. 27

22 Choose the figure which is different from the rest.

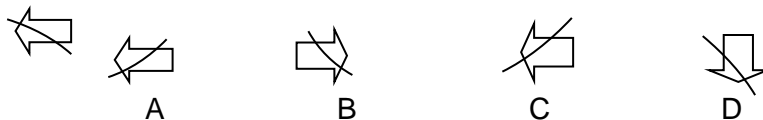


23 What is missing number?

E	C	O
B	A	B
G	B	N
D	B	?

- A. H B. T C. K D. E

24 Which is the correct image from the given four images?



25 Which of the following expression is true for apparent power in an AC circuit?

- A. $V_{r.m.s.} I_{r.m.s.}$ B. $V_{mean} I_{mean}$
 C. $V_{peak} I_{peak}$ D. $VI_{\cos\phi}$

26 The maximum demand of consumer is 25 kVA at 0.8 power factor and his daily energy consumption is 200 units, his load factor will be?

- A. 10 B. 0.1
 C. 0.416 D. 2.4

27 A 200/400 ratio transformer has a secondary winding resistance of 0.5Ω . The total resistance as referred primary should be about

- A. 0.125Ω B. 0.25Ω
 C. 0.5Ω D. 1Ω

28 Which of the following size of earthing wire has the largest sectional area?

- A. 6SWG B. 8SWG
 C. 10SWG D. 12SWG

- 29 Merz price protection system of generator is protection against
 A. Earth fault within generator B. Overload protection
 C. Over voltage protection D. Over speed protection
- 30 Maximum demand charge are given in
 A. kW B. kVAR C. kVA D. kV
- 31 The unit of luminous flux is
 A. Lumen B. Steradian C. Candela D. Lux
- 32 In reverse blocking mode of a thyristor?
 A. Junction J_2 is in reverse bias and J_1, J_3 is in forward bias
 B. Junction J_3 is in forward bias and J_1, J_2 is in reverse bias
 C. Junction J_1, J_3 is in reverse bias and J_2 is in forward bias
 D. Junction J_1 and J_2 is in forward bias and J_3 is in reverse bias
- 33 Among the following options, which is not related with airport lighting system?
 A. VLSI B. PAPI
 C. VASI D. RAIL
- 34 If the inertia constant $H= 8\text{MJ/MVA}$ for a 50 MVA generator, the stored energy is
 A. 400MJ B. 8MJ
 C. 50MJ D. 200MJ
- 35 Maximum power transfer capability of transmission line can be increased by
 A. Parallel transmission lines B. Using series capacitance
 C. Using bundled conductors D. all of the above
- 36 Luminous efficiency of a fluorescence lamp is
 A. 70 lumens/watt B. 60 lumens/watt
 C. 40 lumens/watt D. 30 lumens/watt
- 37 Which type of connection is employed for current transformers for the protection of star-delta connected 3-phase transformer?
 A. Delta-delta B. Star-star
 C. Delta-star D. Star-delta
- 38 When pure inductive load is connected to the alternator, what is the effect of armature reaction?
 A. Cross magnetization B. Demagnetization
 C. Magnetization D. None of the above
- 39 The unit of solar irradiance is
 A. kW/m^2 B. Jouie/ m^2
 C. F/m D. kWh
- 40 Maxwell –wien bridge is used for measuring
 A. Capacitance B. Dielectrical loss
 C. Inductance D. Phase angle
- 41 The longitudinal spacing between the consecutive runway edge light is :
 A. 40m B. 60m
 C. 30m D. 90m
- 42
- 43
- 44
- 45
- 46
- 47
- 48
- 49
- 50

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प्राविधिक, ईलेक्ट्रिकल ईन्जिनियरिङ्ग, पाँचौ, बरिष्ठ सहायक पदको
नमूना प्रश्नपत्र

पत्र: द्वितीय

समय: २ घण्टा ३० मिनेट

पूर्णाङ्क : १००

विषय : सेवा सम्बन्धि

1. What will be the resistance of 100 W lamp when 200 V supply is used in the bulb? 5
2. State maximum power transfer theorem and obtain the expression of maximum power transferred. 5
3. Can electromotive force and potential difference of a source be identical? If not, how do you differentiate these two quantities? 5
4. What are the advantage and disadvantage of power delivery using underground cables in comparison to overhead lines? 5
5. List 3 different types of hydropower plants and differentiate them with each other. 5
6. Discuss the advantages of rotating magnetic field and stationary armature system in comparison to rotating armature and stationary field in case of synchronous generator. 5
7. How do you change the direction of 3 phase AC motors? What are the advantages of AC motors as compared to DC motor? 5
8. What is slip in an induction motor? 5
9. Explain the operating principle of DC motor and clarify the function of commutator segments and carbon brushes. 10
10. Explain the torque-slip characteristics of an induction motor. 5
11. Why sheath is used in the underground cable? 5
12. What is the difference between isolator and electric circuit breaker? 5
13. Explain the terms: 5
 - i) Diversity factor
 - ii) Load factor
 - iii) Maximum demand
 - iv) power factor
14. Write down the safety precautions when working with electricity. 5
15. What do you mean by "corrective maintenance"? Describe its general steps. 5
16. What is 'PAPI' in aviation? 5
17. What is "Stroboscopic" effect"? How the effect is eliminated in fluorescent tube lighting? 5
18. What is power factor? What are the causes of low power factor? List out disadvantage of low power factor. Explain the power factor improvement by a shunt capacitor for a lagging low power factor. 10

-The End-