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PWD JE (Civil)

Previous Year Paper
13 Feb, 2019



Public Works Department

Application ID:	
Candidate Name:	
Candidate Changed Name:	
Exam Center Name:	
Exam Date:	13/02/2019
Exam Time:	10:00 AM-11:30 AM
Post:	Junior Engineer (Civil) Group-B,Non Gazetted
Marks Obtained:	

Q.1 Which one of the following type of material exhibits same elastic properties in all directions?

- Options:**
- A. Isotropic
 - B. Anisotropic
 - C. Homogenous
 - D. Non – homogenous

Question ID : 11633
Correct Option : A. Isotropic
Chosen Option : C. Homogenous
Marks : 0.0

Q.2 If the compressive strength of concrete increases, then what will be the effect on brittleness of concrete?

- Options:**
- A. Increase
 - B. Decrease
 - C. Remain same
 - D. First decrease then increase

Question ID : 11359
Correct Option : A. Increase
Chosen Option : A. Increase
Marks : 2.0

Q.3 What should be the minimum radius of gyration for the lacing flat in the design of lacing of compression member? (Where, r = radius of gyration, t = thickness of lacing flat)

- A) $r = t / \sqrt{12}$
- B) $r = t / 4$
- C) $r = t / \sqrt{20}$
- D) $r = t / \sqrt{15}$

- Options:**
- A. A
 - B. B
 - C. C
 - D. D

Question ID : 11388
Correct Option : A. A
Chosen Option : A. A
Marks : 2.0

Q.4 दिलेल्या पर्यायातून सर्वात योग्य वाकप्रचार निवडून प्रश्नातील रिकाम्या जागा भरा. पेरुच्या झाडाचे मालक समोरून येताना दिसताच पेरु पाडणाऱ्या मुलांचा _____.

- Options:**
- A. अंगाची लाही झाली
 - B. उर भरून आले
 - C. चेहरा पांढरा फटफटीत पडला
 - D. कानातल्या कानात सांगितले

Question ID : 11394
Correct Option : C. चेहरा पांढरा फटफटीत पडला
Chosen Option : B. उर भरून आले
Marks : 0.0

Q.5 The sign of sag correction and slope correction applied to tape error are

- Options:**
- A. Positive and negative respectively
 - B. Negative and positive respectively
 - C. Both positive
 - D. Both negative

Question ID : 11400
Correct Option : D. Both negative
Chosen Option : A. Positive and negative respectively
Marks : 0.0

Q.6 A soil sample with specific gravity X has a mass specific gravity of 1.70. Assuming the soil to be perfectly dry, if the void ratio is 0.60, the value of X will be

- Options:
- A.2.52
 - B.2.62
 - C.2.72
 - D.2.82

Question ID : 11632
Correct Option : C.2.72
Chosen Option : D.2.82
Marks : 0.0

Q.7 Which one of the following gives the value of effective span of simply supported beam?

- Options:
- A.Lesser of the following
(i) Clear span + effective depth
(ii) Centre to centre distance between supports
 - B.Greater of the following
(i) Clear span + effective depth
(ii) Centre to centre distance between supports
 - C.Clear span + overall depth
 - D.None of the above

Question ID : 11354
Correct Option : A.Lesser of the following
(i) Clear span + effective depth
(ii) Centre to centre distance between supports
Chosen Option : C.Clear span + overall depth
Marks : 0.0

Q.8 In design of steel structure as per limit state method, the value of partial safety factor for resistance governed by ultimate stress is —

- Options:
- A.1.1
 - B.1.25
 - C.1.5
 - D.2.0

Question ID : 11356
Correct Option : B.1.25
Chosen Option : C.1.5
Marks : 0.0

Q.9 What is the modular ratio to be used in the analysis of RC beam using working stress method if the grade of concrete is M20?

- Options:
- A.18.6
 - B.13.3
 - C.9.9
 - D.6.5

Question ID : 11363
Correct Option : B.13.3
Chosen Option : B.13.3
Marks : 2.0

Q.10 For an I- beam shape factor is 1.12 The factor of safety in bending is 1.5 If the allowable stress is increased by 25% wind and earthquake loads then the load factor is

- Options:
- A.1.344
 - B.1.444
 - C.1.534
 - D.1.234

Question ID : 11366
Correct Option : A.1.344
Chosen Option : C.1.534
Marks : 0.0

Q.11 दोन बॉक्स आहेत, एक लाल आणि दुसरा काळा. एका बॉक्सवर डॉलर ठेवलेला आहे आणि दुसऱ्या बॉक्सवर रुपया ठेवलेला आहे. A म्हणतो "डॉलर काळ्या बॉक्सवर आहे" आणि B म्हणतो "रुपया लाल बॉक्सवर आहे". जर A आणि B पैकी किमान एक खोट बोलत असेल, तर खालीलपैकी कोणते सत्य आहे?

There are two boxes, one red and another black. A Dollar is kept on one box and a Rupee on the other box. A says "Dollar is on the black box" and B says "Rupee is on the red box". If at least one of them is lying, which of the following is true?

- Options:
- A.रुपया काळ्या बॉक्सवर आहे
 - A.Rupee is on black box
 - B.रुपया लाल बॉक्सवर आहे
 - B.Rupee is on red box
 - C.डॉलर काळ्या बॉक्सवर आहे
 - C.Dollar is on black box
 - D.सांगू शकत नाही
 - D.Can't say

Question ID : 11368
Correct Option : A.रुपया काळ्या बॉक्सवर आहे
A.Rupee is on black box
Chosen Option : A.रुपया काळ्या बॉक्सवर आहे
A.Rupee is on black box
Marks : 2.0

Q.12 How does the distance of centre of pressure from free surface of liquid depends on the density of the liquid?

- Options:** A. Fully dependent
B. Partially dependent
C. Independent
D. None of these

Question ID : 11369
Correct Option : C. Independent
Chosen Option : B. Partially dependent
Marks : 0.0

Q.13 As per IS 1343-1980, the minimum 28 days cube compressive strength for pre-tensioned member & post-tensioned member is

- Options:** A. 20N/mm² & 30N/mm²
B. 30N/mm² & 40N/mm²
C. 40 N/mm² & 30 N/mm²
D. 40N/mm² & 20N/mm²

Question ID : 11371
Correct Option : C. 40 N/mm² & 30 N/mm²
Chosen Option : C. 40 N/mm² & 30 N/mm²
Marks : 2.0

Q.14 खालीलपैकी कोणते शहर "वाइन कॅपिटल ऑफ इंडिया" म्हणून ओळखले जाते?

Which among these following cities is known as the "Wine Capital of India"?

- Options:** A. नाशिक
A. Nashik
B. बंगलोर
B. Bangalore
C. चंदीगड
C. Chandigarh
D. म्हैसूर
D. Mysore

Question ID : 11375
Correct Option : A. नाशिक
A. Nashik
Chosen Option : C. चंदीगड
C. Chandigarh
Marks : 0.0

Q.15 Reconnaissance survey for highway location is the-

- Options:** A. First stage of survey
B. secondary stage of survey
C. third stage of survey
D. fourth stage of survey

Question ID : 11378
Correct Option : B. secondary stage of survey
Chosen Option : B. secondary stage of survey
Marks : 2.0

Q.16 Which of the following category of roads is included in the Secondary system according to third Road development Plan?

- Options:** A. Expressways
B. National Highways
C. Major District Roads
D. Other District Roads

Question ID : 11379
Correct Option : C. Major District Roads
Chosen Option : C. Major District Roads
Marks : 2.0

Q.17 Which one of the following formula represents the effective width of flange for non isolated T- beam?

Where, l_0 = Distance between points of zero moment

b_w = Breadth of web

D_f = Thickness of flange

b = Actual width of flange

A) $\frac{l_0}{6} + b_w + 6D_f$

B) $\frac{l_0}{12} + b_w + 3D_f$

C) $\left(\frac{l_0}{b} + 4 \right) + b_w$

D) $\left(\frac{0.5l_0}{b} + 4 \right) + b_w$

- Options:** A. A
B. B
C. C
D. D

Question ID : 11380
Correct Option : A. A
Chosen Option : B. B
Marks : 0.0

<p>Q.18 What is the acceptable noise level (outdoor) as per IS 4954: 1968 in city area?</p> <p>Options: A.25-35 dB(A) B.35-45 dB(A) C.45-55 dB(A) D.55-65 dB(A)</p>	<p>Question ID : 11386 Correct Option : C.45-55 dB(A) Chosen Option : B.35-45 dB(A) Marks : 0.0</p>
<p>Q.19 The flakiness index of aggregate is the percentage by weight of aggregate particle whose least dimension is less than _____of their mean dimension ?</p> <p>Options: A.One-fifth B.Two-fifth C.Three-fifth D.Four-fifth</p>	<p>Question ID : 11391 Correct Option : C.Three-fifth Chosen Option : C.Three-fifth Marks : 2.0</p>
<p>Q.20 The lacing for compression member should be proportioned to resist a total transverse shear V equal to ___ percent of the axial force on the column</p> <p>Options: A.1.5 B.2.5 C.3.5 D.4.5</p>	<p>Question ID : 11602 Correct Option : B.2.5 Chosen Option : B.2.5 Marks : 2.0</p>
<p>Q.21 For calculation purpose, capillary rise or fall the value of angle of contact between liquid and glass tube (θ) for water is taken equal to</p> <p>Options: A.0 degree B.90 degree C.45 degree D.10 degree</p>	<p>Question ID : 11605 Correct Option : A.0 degree Chosen Option : C.45 degree Marks : 0.0</p>
<p>Q.22 When do we provide minimum shear reinforcement in the beam for shear design?</p> <p>Options: A.Nominal shear stress (τ_v) < 0.5 × permissible shear stress (τ_c) B.0.5 × permissible shear stress (τ_c) < τ_v C.Nominal shear stress (τ_v) >permissible shear stress (τ_c) D.Always</p>	<p>Question ID : 11610 Correct Option : DISCARDED QUESTION Chosen Option : DISCARDED QUESTION Marks : 2.0</p>
<p>Q.23 खाली दिलेल्या पर्यायातून व्याकरणाच्या दृष्टीने योग्य असलेला पर्याय निवडा.</p> <p>Options: A.राजधानी नवी दिल्लीची वेशीवर शेतकरी येऊन थडकल्यानंतर केंद्र सरकारने रब्बी पिकाच्या हमीभावात वाढ करण्याचा निर्णय घेतला. B.मान्सूनच्या परतीचा प्रवास अद्याप संपलेला नसला, तरी जून ते सप्टेंबर हे चार पावसाळी महिने राज्यातील १९ जिल्ह्यांसाठी जवळ जवळ कोरडे गेले. C.संपूर्ण मराठवाड्याकडे; तसेच पश्चिम व उत्तर महाराष्ट्रातील काही जिल्ह्यांकडे पावसाने पाठ फिरवल्याने तिथे रब्बी पीके हाती लागण्याचा शक्यता नाहीच. D.औरंगाबाद, बीड आणि जालना यांसारख्या जिल्ह्यांतील तीन हजार गावांमधिल पिकांची आणेवारी पन्नास टक्क्यांहून कमी आहे.</p>	<p>Question ID : 11617 Correct Option : B.मान्सूनच्या परतीचा प्रवास अद्याप संपलेला नसला, तरी जून ते सप्टेंबर हे चार पावसाळी महिने राज्यातील १९ जिल्ह्यांसाठी जवळ जवळ कोरडे गेले. Chosen Option : B.मान्सूनच्या परतीचा प्रवास अद्याप संपलेला नसला, तरी जून ते सप्टेंबर हे चार पावसाळी महिने राज्यातील १९ जिल्ह्यांसाठी जवळ जवळ कोरडे गेले. Marks : 2.0</p>

<p>Q.24 Select the words that best fit the blank. He is the man _____ was dead</p> <p>Options: A.whom I think B.who I thought C.whom I thought D.who I think</p>	<p>Question ID : 11634 Correct Option : B.who I thought Chosen Option : D.who I think Marks : 0.0</p>
<p>Q.25 Which one of the following component is added in rapid curing cutback bitumen?</p> <p>Options: A.gasoline B.kerosene C.High boiling point gases D.None of the above</p>	<p>Question ID : 11637 Correct Option : A.gasoline Chosen Option : C.High boiling point gases Marks : 0.0</p>
<p>Q.26 A soil sample with specific gravity 2.70 has a mass specific gravity of 1.84. Assuming the soil to be perfectly dry, the void ratio will be</p> <p>Options: A.0.37 B.0.47 C.0.57 D.0.67</p>	<p>Question ID : 11638 Correct Option : B.0.47 Chosen Option : C.0.57 Marks : 0.0</p>
<p>Q.27 Which of the following is opposite in meaning to the word: Tedious</p> <p>Options: A.Interesting B.Tiring C.Expensive D.Economical</p>	<p>Question ID : 11640 Correct Option : A.Interesting Chosen Option : C.Expensive Marks : 0.0</p>
<p>Q.28 The intensity of stress which causes unit strain is</p> <p>Options: A.Modulus of elasticity B.Modulus of plasticity C.Modulus of rigidity D.Bulk Modulus</p>	<p>Question ID : 11641 Correct Option : A.Modulus of elasticity Chosen Option : C.Modulus of rigidity Marks : 0.0</p>
<p>Q.29 Which one of the following is width of carriage way for two lane road with no kerb?</p> <p>Options: A.3.75m B.4.25m C.6.75m D.7m</p>	<p>Question ID : 11642 Correct Option : D.7m Chosen Option : D.7m Marks : 2.0</p>
<p>Q.30 The value of shape factor for diamond section is</p> <p>Options: A.1.0 B.2.0 C.3.0 D.4.0</p>	<p>Question ID : 11644 Correct Option : B.2.0 Chosen Option : B.2.0 Marks : 2.0</p>
<p>Q.31 The commonly adopted size for house drains in case of Vent pipe, for average condition is ___ times of diameter</p> <p>Options: A.20 B.30 C.40 D.50</p>	<p>Question ID : 11645 Correct Option : DISCARDED QUESTION Chosen Option : DISCARDED QUESTION Marks : 2.0</p>

Q.32

Which one of the following is correct relationship between flexural strength (f_{cr}) & characteristic Compressive strength of concrete (f_{ck})?

A) $f_{cr} = 0.7\sqrt{f_{ck}}$

B) $f_{cr} = 0.7 \times f_{ck}$

C) $f_{cr} = 7\sqrt{f_{ck}}$

D) $f_{cr} = 7 \times f_{ck}$

- Options:
- A. A
 - B. B
 - C. C
 - D. D

Question ID : 11355
Correct Option : A. A
Chosen Option : A. A
Marks : 2.0

Q.33

Modulus of rigidity of the material is given by

A) Shear stress / shear strain

B) Shear strain / shear stress

C) $\sqrt{\frac{\text{shear stress}}{\text{shear strain}}}$

D) $\sqrt{\frac{\text{shear strain}}{\text{shear stress}}}$

- Options:
- A. A
 - B. B
 - C. C
 - D. D

Question ID : 11357
Correct Option : A. A
Chosen Option : A. A
Marks : 2.0

Q.34

Which of the following line represents the sum of pressure head and datum head with respect to some reference line ?
Where, H.G.L. = Hydraulic Gradient Line and T.E.L. = Total energy Line

- Options:
- A.H.G.L.
 - B.T.E.L.
 - C.H.G.L. + T.E.L.
 - D.T.E.L. - H.G.L.

Question ID : 11358
Correct Option : A.H.G.L.
Chosen Option : C.H.G.L. + T.E.L.
Marks : 0.0

Q.35

In a rigid pavement, let the load stress, warping stress and frictional stresses are 190 MPa, 260 MPa and 10 MPa respectively. The critical combination of stresses at edge region during Winter is

- Options:
- A.450 MPa
 - B.460 MPa
 - C.440 MPa
 - D.470 MPa

Question ID : 11382
Correct Option : B.460 MPa
Chosen Option : C.440 MPa
Marks : 0.0

<p>Q.36 स्वर्गीय पंतप्रधान अटलबिहारी वाजपेयी यांच्या 94 व्या जयंतीनिमित्त ग्रामीण भागातील विद्यार्थ्यांसाठी खालीलपैकी कोणत्या राज्याने 'भारत रत्न अटलबिहारी वाजपेयी इंटरनॅशनल स्कूल' सुरू केली आहे?</p> <p>Which one of following state has launched the 'Bharat Ratna Atal Bihari Vajpayee International Schools' for students in rural areas on the occasion of 94th birth anniversary of the late prime minister Atal Bihari Vajpayee?</p> <p>Options: A. मध्य प्रदेश A. Madhya Pradesh B. उत्तर प्रदेश B. Uttar Pradesh C. महाराष्ट्र C. Maharashtra D. गुजरात D. Gujarat</p>	<p>Question ID : 11360 Correct Option : C. महाराष्ट्र C. Maharashtra Chosen Option : D. गुजरात D. Gujarat Marks : 0.0</p>
<p>Q.37 Examples of coagulant are: (1) Filter alum (2) Copperas (3) Chlorinated Copperas (4) Sodium aluminate</p> <p>Options: A. 2, 3 & 4 only B. 3 & 4 only C. 2 & 4 only D. 1, 2, 3 & 4</p>	<p>Question ID : 11365 Correct Option : D. 1, 2, 3 & 4 Chosen Option : D. 1, 2, 3 & 4 Marks : 2.0</p>
<p>Q.38 A Steel wire of 40 mm diameter is bent into a circular shape of 20m radius. If the modulus of elasticity 3×10^6 kg/cm² then maximum stress induced in the wire is.</p> <p>Options: A. 2×10^3 kg/cm² B. 4×10^3 kg/cm² C. 3×10^3 kg/cm² D. 6×10^3 kg/cm²</p>	<p>Question ID : 11372 Correct Option : C. 3×10^3 kg/cm² Chosen Option : A. 2×10^3 kg/cm² Marks : 0.0</p>
<p>Q.39 The limiting value of slenderness ratio for a steel member carrying compressive loads resulting from dead loads & imposed loads is —</p> <p>Options: A. 180 B. 250 C. 300 D. 400</p>	<p>Question ID : 11373 Correct Option : A. 180 Chosen Option : B. 250 Marks : 0.0</p>
<p>Q.40 ही माझी बाग आहे. या वाक्यातील 'ही' ह्या शब्दाची जात कोणती आहे?</p> <p>Options: A. सर्वनाम B. नाम C. क्रियापद D. क्रियाविशेषण</p>	<p>Question ID : 11376 Correct Option : A. सर्वनाम Chosen Option : A. सर्वनाम Marks : 2.0</p>
<p>Q.41 विरुद्धार्थी शब्द ओळखा: विसंगत</p> <p>Options: A. स्वतंत्र B. अभाव C. भिन्नता D. सुसंगत</p>	<p>Question ID : 11377 Correct Option : D. सुसंगत Chosen Option : D. सुसंगत Marks : 2.0</p>

<p>Q.42 Workability of concrete can be determined by conducting which one of the following type of tests?</p> <p>Options: A.Cylinder splitting test B.Vee-bee test C.Surface area test D.Pull out test</p>	<p>Question ID : 11381 Correct Option : B.Vee-bee test Chosen Option : A.Cylinder splitting test Marks : 0.0</p>
<p>Q.43 In a circular reinforced concrete column, the minimum no. of longitudinal of bar to be provided are?</p> <p>Options: A.3 B.4 C.5 D.6</p>	<p>Question ID : 11383 Correct Option : D.6 Chosen Option : D.6 Marks : 2.0</p>
<p>Q.44 श्रीकांत किदम्बी लोकप्रिय ___ खेळाडू आहे. Srikanth Kidambi is a popular ___ player.</p> <p>Options: A. क्रिकेट A.Cricket B.बॅडमिंटन B.Badminton C.टेनिस C.Tennis D.हॉकी D.Hockey</p>	<p>Question ID : 11385 Correct Option : B.बॅडमिंटन B.Badminton Chosen Option : B.बॅडमिंटन B.Badminton Marks : 2.0</p>
<p>Q.45 The main reinforcement of a R.C Slab consists of 10 mm bars at 100mm spacing, if it is designed to replace the 10mm bars by 12mm bars then the spacing of 12mm bars should be</p> <p>Options: A.120mm B.140mm C.144mm D.160mm</p>	<p>Question ID : 11601 Correct Option : C.144mm Chosen Option : A.120mm Marks : 0.0</p>
<p>Q.46 Estimate the capillary rise in a soil with a void ratio of 0.60 and an effective size of 0.01 mm. Take $C = 15 \text{ mm}^2$</p> <p>Options: A.1.0m B.1.5m C.2.0m D.2.5m</p>	<p>Question ID : 11611 Correct Option : D.2.5m Chosen Option : D.2.5m Marks : 2.0</p>
<p>Q.47 खाली दिलेल्या अर्थावरून त्याचा योग्य ती म्हण निवडा. पचेल तेव्हादे खाल्ले तर शरीर सुधूढ बनू शकते, पण अधाश्यासारखे व वाजवीपेक्षा जास्त खाल्ले तर ते आरोग्याला अपायकारक ठरते.</p> <p>Options: A.असंगाशी संग आणि प्राणाशी गाठ. B.अन्न तारी, अन्न मारी C.अन्नछत्री जेवणे आणि मिरपूड मागणे D.चढेल तो पडेल</p>	<p>Question ID : 11629 Correct Option : B.अन्न तारी, अन्न मारी Chosen Option : C.अन्नछत्री जेवणे आणि मिरपूड मागणे Marks : 0.0</p>
<p>Q.48 In parallel pipes , which of the following stands TRUE?</p> <p>Options: A.Head loss is constant B.Velocity is constant C.Discharge is constant D.Both Velocity is constant and Discharge is constant</p>	<p>Question ID : 11643 Correct Option : A.Head loss is constant Chosen Option : D.Both Velocity is constant and Discharge is constant Marks : 0.0</p>

<p>Q.49 The ratio of maximum hourly water demand to average hourly water demand will be</p> <p>Options: A.1.28 B.1.50 C.1.8 D.2.7</p>	<p>Question ID : 11630 Correct Option : D.2.7 Chosen Option : B.1.50 Marks : 0.0</p>
<p>Q.50 The bearing in Reduced Bearing system, is measured</p> <p>Options: A.Clockwise or anticlockwise from the north or south towards east or west B.Clockwise from the north to the east only C.Anticlockwise from the north to the west only D.Anticlockwise from the north to the east only</p>	<p>Question ID : 11384 Correct Option : A.Clockwise or anticlockwise from the north or south towards east or west Chosen Option : B.Clockwise from the north to the east only Marks : 0.0</p>
<p>Q.51 Rate of wearing of stone is determined by which of the following test?</p> <p>Options: A.Impact test B.Abrasion test C.Water absorption test D.Attrition test</p>	<p>Question ID : 11362 Correct Option : D.Attrition test Chosen Option : B.Abrasion test Marks : 0.0</p>
<p>Q.52 An idea is expressed in several possible ways. Choose the statement which is correct and expresses the idea most correctly.</p> <p>Options: A.Japan is striving for identifying the best role for itself in the Pacific vaccum. B.Japan is striving in identifying the best role for itself in the Pacific vaccuum. C.Japan is striving to identify the best role for itself in the Pacific vaccum. D.Japan is striving to identify the best role for itself in the Pacific vacuum.</p>	<p>Question ID : 11392 Correct Option : D.Japan is striving to identify the best role for itself in the Pacific vacuum. Chosen Option : D.Japan is striving to identify the best role for itself in the Pacific vacuum. Marks : 2.0</p>
<p>Q.53 1 जानेवारी 2018 ला सोमवार होता तर 30 जून, 2018 ला _____ होता. January 1st, 2018 was a Monday. Then June 30th, 2018 was a _____</p> <p>Options: A.शनिवार A.Saturday B.रविवार B.Sunday C.सोमवार C.Monday D.शुक्रवार D.Friday</p>	<p>Question ID : 11374 Correct Option : A.शनिवार A.Saturday Chosen Option : A.शनिवार A.Saturday Marks : 2.0</p>
<p>Q.54 S-shaped curve (in regard of population forecasting method) is</p> <p>Options: A.Growth curve B.Logistic curve C.Both Growth curve and Logistic curve D.None of these</p>	<p>Question ID : 11352 Correct Option : C.Both Growth curve and Logistic curve Chosen Option : C.Both Growth curve and Logistic curve Marks : 2.0</p>

Q.55 Maximum shear stress developed on the surface of a solid circular shaft under pure torsion is 320 Mpa. If the shaft diameter is doubled then the maximum shear stress developed corresponding to same torque will be

- Options:** A.120 Mpa
B.60 Mpa
C.40 Mpa
D.20 Mpa

Question ID : 11353
Correct Option : C.40 Mpa
Chosen Option : B.60 Mpa
Marks : 0.0

Q.56 The natural water content, liquid limit and plastic limit of a soil sample are 40%, 55% and 35% respectively. The percentage of the soil fraction with grain size finer than 0.002mm is 25. The activity ratio of the sample is ____

- Options:** A.0.60
B.0.80
C.1.00
D.1.50

Question ID : 11389
Correct Option : B.0.80
Chosen Option : C.1.00
Marks : 0.0

Q.57 P, Q, R आणि S परीक्षेसाठी येतात. P प्रथम येत नाही. Q हा P च्या अगदी पुढे येतो. S हा शेवटी येत नाही. तर S कोणत्या स्थानी येतो?

P, Q, R and S arrive for an exam. P did not come first. Q came just ahead of P. S did not come last. In which position did S come?

- Options:** A.पहिला
A.1st
B.दुसरा
B.2nd
C.पहिला किंवा दुसरा
C.1st or 2nd
D.पहिला, दुसरा किंवा तिसरा
D.1st, 2nd or 3rd

Question ID : 11395
Correct Option : D.पहिला, दुसरा किंवा तिसरा
D.1st, 2nd or 3rd
Chosen Option : B.दुसरा
B.2nd
Marks : 0.0

Q.58 A clay layer lies in the category of

- Options:** A.Aquiclude
B.Aquitard
C.Aquifuge
D.None of these

Question ID : 11397
Correct Option : A.Aquiclude
Chosen Option : C.Aquifuge
Marks : 0.0

Q.59 There was a steaming mist in all the hollows, and it had roamed in its forlornness up the hill, like an evil spirit, seeking rest and finding none. A clammy and intensely cold mist, it made its slow way through the air in ripples that visibly followed and overspread one another, as the waves of an unwholesome sea might do. It was dense enough to shut out everything from the light of the coach-lamps but these its own workings, and a few yards of road; and the reek of the labouring horses steamed into it, as if they had made it all.
What is the tone of the passage above?

- Options:** A.Descriptive
B.Tired
C.Excited
D.Ominous

Question ID : 11616
Correct Option : D.Ominous
Chosen Option : C.Excited
Marks : 0.0

<p>Q.60 चार मित्र एका पार्टीत गेले. अनील शेवटी पोहोचला नाही आणि अजयच्या 1 तास आधी पोहोचला. अशोक 6.15 pm वाजता पोहोचला आणि अरुणच्या आधी पोहोचला. अजय शेवटी पोहोचला नाही आणि अरुणच्या 30 मिनिटांआधी पोहोचला. एक व्यक्ती 7.30 pm वाजता पोहोचला आणि दुसरा 6.00 pm वाजता पोहोचला. तर 7.00 pm वाजता कोण पोहोचला?</p> <p>Four friends went to a party. Anil was not the last to arrive and arrived 1 hour before Ajay. Ashok arrived at 6.15pm and arrived before Arun. Ajay was not the last to arrive and arrived 30 minutes before Arun. One person arrived at 7.30 pm and another at 6.00 pm. Who arrived at 7.00 pm?</p> <p>Options: A. अजय A.Ajay B. अरुण B.Arun C. अनिल C.Anil D. अशोक D.Ashok</p>	<p>Question ID : 11398 Correct Option : A.अजय A.Ajay Chosen Option : A.अजय A.Ajay Marks : 2.0</p>
<p>Q.61 एप्रिल 2018 मध्ये भारताच्या सर्वोच्च न्यायालयाच्या न्यायाधीश म्हणून नियुक्त केलेली पहिली ज्येष्ठ महिला वकील कोण आहे?</p> <p>Who is the first senior woman advocate, directly appointed as the judge of Supreme Court of India in April 2018?</p> <p>Options: A. इंदिरा बॅनर्जी A.Indira Banerjee B. रुमा पाल B.Ruma Pal C. इंदु मल्होत्रा C.Indu Malhotra D. आर. भानुमती D.R. Bhanumati</p>	<p>Question ID : 11604 Correct Option : C.इंदु मल्होत्रा C.Indu Malhotra Chosen Option : C.इंदु मल्होत्रा C.Indu Malhotra Marks : 2.0</p>
<p>Q.62 The natural water content, liquid limit and plastic limit of a soil sample are 35%, 50% and 25% respectively. The percentage of the soil fraction with grain size finer than 0.002mm is 20. The activity ratio of the sample is</p> <p>Options: A.0.60 B.0.80 C.1.00 D.1.25</p>	<p>Question ID : 11606 Correct Option : D.1.25 Chosen Option : B.0.80 Marks : 0.0</p>
<p>Q.63 Which one of the following property of cement is evaluated by Vicat Apparatus ?</p> <p>Options: A.Soundness of cement B.Setting time C.Fineness D.None of the above</p>	<p>Question ID : 11607 Correct Option : B.Setting time Chosen Option : D.None of the above Marks : 0.0</p>
<p>Q.64 A soil has a liquid limit of 30% and a flow index of 15%. If the plastic limit is 20%, toughness index will be ____</p> <p>Options: A.50 percent B.67 percent C.75 percent D.133 percent</p>	<p>Question ID : 11612 Correct Option : B.67 percent Chosen Option : B.67 percent Marks : 2.0</p>

Q.65 The volumetric strain of a rectangular bar of length L, width b and thickness (depth) d which is subjected to axial load P is given by (μ is poisson's ratio, ϵ is young's modulus)

- A) $\frac{P}{\epsilon}(1-2\mu)$
- B) $\frac{2P}{\epsilon}(1-\mu)$
- C) $\frac{P}{\epsilon}(1-\frac{1}{\mu})$
- D) $\frac{2P}{\epsilon}(2-\mu)$

Options: A. A
B. B
C. C
D. D

Question ID : 11614
Correct Option : A. A
Chosen Option : A. A
Marks : 2.0

Q.66 For indirect and direct ranging, the minimum number ranging rods required are

Options: A.3 & 2 respectively
B.2 & 3 respectively
C.4 & 3 respectively
D.3 & 4 respectively

Question ID : 11615
Correct Option : C.4 & 3 respectively
Chosen Option : C.4 & 3 respectively
Marks : 2.0

Q.67 As per IS 456:2000 the minimum value of the nominal cover for longitudinal reinforcing bar in a column is:

Options: A.40mm or diameter of bar whichever is more
B.30mm or diameter of bar whichever is more
C.40mm or diameter of bar whichever is less
D.30mm or diameter of bar whichever is less

Question ID : 11623
Correct Option : A.40mm or diameter of bar whichever is more
Chosen Option : C.40mm or diameter of bar whichever is less
Marks : 0.0

Q.68 The section modulus for a circular section with diameter D is given by

- A) $\frac{\pi}{6}D^4$
- B) $\frac{\pi}{32}D^4$
- C) $\frac{\pi}{32}D^3$
- D) $\frac{\pi}{64}D^4$

Options: A. A
B. B
C. C
D. D

Question ID : 11624
Correct Option : C. C
Chosen Option : C. C
Marks : 2.0

Q.69 As per IS456:2000, how many types of cement are allowed for intended use?

Options: A.7
B.8
C.9
D.10

Question ID : 11628
Correct Option : D.10
Chosen Option : A.7
Marks : 0.0

Q.70 The value of the co-efficient of permeability of a soil with an effective diameter of 0.15 mm will be (Take C = 120)

Options: A.0.018 mm/sec
B.0.027 mm/sec
C.0.018 cm/sec
D.0.027 cm/sec

Question ID : 11631
Correct Option : D.0.027 cm/sec
Chosen Option : C.0.018 cm/sec
Marks : 0.0

<p>Q.71 The original cost of an equipment is Rs.12000. If salvage value at the end of its total useful life of five years is Rs.1500. Its book value at the end of two years of its useful life (as per straight line method of evaluation of depreciation) will be</p> <p>Options: A. Rs.7800 B. Rs.7200 C. Rs.7300 D. Rs.7400</p>	<p>Question ID : 11635 Correct Option : A. Rs.7800 Chosen Option : B. Rs.7200 Marks : 0.0</p>
<p>Q.72 Which one of the following gives the characteristic compressive strength compliance requirement for individual test result (in N/mm^2) of M15 grade? Where, f_{ck} = Characteristic Compressive Strength</p> <p>Options: A. ($f_{ck} - 3$) B. ($f_{ck} - 4$) C. ($f_{ck} - 5$) D. ($f_{ck} - 6$)</p>	<p>Question ID : 11636 Correct Option : A. ($f_{ck} - 3$) Chosen Option : C. ($f_{ck} - 5$) Marks : 0.0</p>
<p>Q.73 Which of the following is closest in meaning to the word: Reticent</p> <p>Options: A. amused B. puzzled C. reserved D. angry</p>	<p>Question ID : 11647 Correct Option : C. reserved Chosen Option : B. puzzled Marks : 0.0</p>
<p>Q.74 The expression for Base of the crop is generally shown by</p> <p>Options: A. Area B. Volume C. Day D. Length</p>	<p>Question ID : 11650 Correct Option : C. Day Chosen Option : C. Day Marks : 2.0</p>
<p>Q.75 The Pipe mains taking the water from the source upto the service reservoir is designed for which of the following?</p> <p>Options: A. Maximum daily consumption B. Average daily consumption C. Maximum daily draft D. Coincident draft</p>	<p>Question ID : 11609 Correct Option : A. Maximum daily consumption Chosen Option : B. Average daily consumption Marks : 0.0</p>
<p>Q.76 The value of shear stress on principal plane is</p> <p>Options: A. Zero B. Maximum C. Minimum but positive D. Average value</p>	<p>Question ID : 11627 Correct Option : A. Zero Chosen Option : A. Zero Marks : 2.0</p>
<p>Q.77 The maximum width of the vehicle as per IRC recommendation is</p> <p>Options: A. 3.75m B. 5 m C. 2.44m D. 3.5m</p>	<p>Question ID : 11618 Correct Option : C. 2.44m Chosen Option : C. 2.44m Marks : 2.0</p>

<p>Q.78 Hydraulic jump occurs due to which of the following transformation?</p> <p>Options: A.Unstable streaming flow to the stable shooting flow B.Unstable tranquil flow to the stable torrential flow C.Unstable tranquil flow to the stable shooting flow D.Unstable shooting flow to the stable streaming flow</p>	<p>Question ID : 11364 Correct Option : D.Unstable shooting flow to the stable streaming flow Chosen Option : D.Unstable shooting flow to the stable streaming flow Marks : 2.0</p>
<p>Q.79 A soil sample with specific gravity 2.85 has a mass specific gravity of 1.85. Assuming the soil to be perfectly dry, the void ratio will be</p> <p>Options: A.0.47 B.0.54 C.0.57 D.0.64</p>	<p>Question ID : 11361 Correct Option : B.0.54 Chosen Option : D.0.64 Marks : 0.0</p>
<p>Q.80 As per IRC recommendation the value of reaction time for the calculation of stopping distance is taken as</p> <p>Options: A.2.5 seconds B.4 seconds C.3 seconds D.2 seconds</p>	<p>Question ID : 11351 Correct Option : A.2.5 seconds Chosen Option : A.2.5 seconds Marks : 2.0</p>
<p>Q.81 विरुद्धार्थी शब्दाची अयोग्य जोडी ओळखा</p> <p>Options: A.उन्नती x अधोगती B.आवश्यक x अनावश्यक C.कृपा x अवकृपा D.कर्णकटू x कर्णकर्कश</p>	<p>Question ID : 11367 Correct Option : D.कर्णकटू x कर्णकर्कश Chosen Option : C.कृपा x अवकृपा Marks : 0.0</p>
<p>Q.82 Compacting factor test is conducted to evaluate which one of the following property of concrete ?</p> <p>Options: A.Tensile strength B.Dynamic modules of elasticity C.Workability D.Compressive strength</p>	<p>Question ID : 11370 Correct Option : C.Workability Chosen Option : C.Workability Marks : 2.0</p>
<p>Q.83 Which one of the following formula gives the maximum value of grade compensation? Where, R =Radius of circular curve (m)</p> <p>Options: A.75/R percent B.65/R percent C.55/R percent D.45/R percent</p>	<p>Question ID : 11387 Correct Option : A.75/R percent Chosen Option : D.45/R percent Marks : 0.0</p>
<p>Q.84 When the neutral axis of T-beam remains within the flange, T-beam behave as:</p> <p>Options: A.Trapezoidal section B.Rectangular beam section C.T-beam section D.None of the above</p>	<p>Question ID : 11390 Correct Option : B.Rectangular beam section Chosen Option : C.T-beam section Marks : 0.0</p>

Q.85 Which of the following relationship holds good?

- Options:** A.Absolute pressure - Atmospheric Pressure – Gauge Pressure = 0
B.Absolute pressure - Atmospheric Pressure + Gauge Pressure = 0
C.Absolute pressure + Atmospheric Pressure – Gauge Pressure = 0
D.Absolute pressure + Atmospheric Pressure + Gauge Pressure = 0

Question ID : 11393
Correct Option : A.Absolute pressure - Atmospheric Pressure – Gauge Pressure = 0
Chosen Option : A.Absolute pressure - Atmospheric Pressure – Gauge Pressure = 0
Marks : 2.0

Q.86 अमेरिकेच्या राष्ट्राध्यक्ष डोनाल्ड ट्रम्पने सीरियाकडून अमेरिकी सैन्य मागे हटण्याबाबत मतभेद केल्यामुळे डिसेंबर 2018 मध्ये अमेरिकेच्या संरक्षण सचिवाने आपल्या पदाचा राजीनामा दिला होता ते कोण होते?

Who was the US Defence Secretary who resigned from his post in December 2018, due to disagreement with the US President Donald Trump over the withdrawal of US troops from Syria?

- Options:** A.जेम्स मॅटिस
A.James Mattis
B.चक हागेल
B.Chuck Hagel
C.ऐश कार्टर
C.Ash Carter
D.पॅट्रिक एम. शानाहन
D.Patrick M. Shanahan

Question ID : 11396
Correct Option : A.जेम्स मॅटिस
A.James Mattis
Chosen Option : D.पॅट्रिक एम. शानाहन
D.Patrick M. Shanahan
Marks : 0.0

Q.87 What is the meaning of the idiom: armed to the teeth

- Options:** A.well prepared
B.needs too much
C.have very sharp teeth
D.shuffling between

Question ID : 11399
Correct Option : A.well prepared
Chosen Option : B.needs too much
Marks : 0.0

Q.88 When the land gradient is steeper and soil is easily erodible, the irrigation method adopted is

- Options:** A.Furrow irrigation method
B.Basin irrigation method
C.Sprinkler irrigation method
D.Drip irrigation method

Question ID : 11603
Correct Option : DISCARDED QUESTION
Chosen Option : DISCARDED QUESTION
Marks : 2.0

Q.89 The strength of a beam section is determined by its

- Options:** A.compressive stress
B.section modulus
C.shear modulus
D.tensile stress

Question ID : 11608
Correct Option : B.section modulus
Chosen Option : A.compressive stress
Marks : 0.0

Q.90 अजय, शेखर आणि विमल कडे एक सफरचंद, एक केळी आणि एक संत्र आहे. आणि प्रत्येकाच्या हातात फक्त एक फळ आहे. पुढील विधानांपैकी फक्त एक विधान सत्य आहे आणि इतर दोन विधाने असत्य आहेत.
- अजय कडे सफरचंद आहे.
- शेखर कडे सफरचंद नाही.
- विमल कडे केळी नाही.
तर सफरचंद कोणाकडे आहे?

Question ID : 11613
Correct Option : B.शेखर
B.Shekhar
Chosen Option : A.अजय
A.Ajay
Marks : 0.0

Ajay, Shekhar and Vimal have an apple, a banana and an orange; and each has just one fruit in hand. Among the following statements, only one is true and the other two are false.
- Ajay has an apple
- Shekhar does not have the apple.
- Vimal does not have the banana.
Who has the apple?

Options: A.अजय
A.Ajay
B.शेखर
B.Shekhar
C.विमल
C.Vimal
D.सांगू शकत नाही
D.Cannot say

Q.91 Which one of the following represent the critical combination of stresses for rigid pavement during winter ?

Options: A.(Load stress + warping stress - frictional stress)_{edge region}
B.(Load stress + warping stress + frictional stress)_{edge region}
C.(Load stress + warping stress)_{corner region}
D.None of the above

Question ID : 11619
Correct Option : B.(Load stress + warping stress + frictional stress)_{edge region}
Chosen Option : C.(Load stress + warping stress)_{corner region}
Marks : 0.0

Q.92 The "Free end" support condition in original beam will be converted to _____ support condition of conjugate beam

Options: A.Fixed end
B.Free end
C.Pinned end
D.Hinged end

Question ID : 11620
Correct Option : A.Fixed end
Chosen Option : A.Fixed end
Marks : 2.0

Q.93 For balanced section in limit state method of design , which one of the following relation is correct ? (Assume x_a to be actual depth of neutral axis & $x_{u,lim}$ to be limiting depth of neutral axis)

Options: A. $x_a < x_{u,lim}$
B. $x_a > x_{u,lim}$
C. $x_a = x_{u,lim}$
D.None of the above

Question ID : 11621
Correct Option : C. $x_a = x_{u,lim}$
Chosen Option : C. $x_a = x_{u,lim}$
Marks : 2.0

<p>Q.94 मे 2018 मध्ये पंतप्रधान नरेंद्र मोदी यांनी उद्घाटन केलेले भारतातील पहिले 14 लेन एक्सप्रेसवे पुढीलपैकी कोणता आहे?</p> <p>Which one of the following is the India's First 14 – lane Expressway, inaugurated by PM Narendra Modi in May-2018?</p> <p>Options: A. दिल्ली - मेरठ एक्सप्रेसवे A.Delhi - Meerut Expressway B.मुंबई - पुणे एक्सप्रेसवे B.Mumbai - Pune Expressway C.मुंबई-नाशिक एक्सप्रेसवे C.Mumbai- Nasik Expressway D.अहमदाबाद - वडोदरा एक्सप्रेसवे D.Ahmedabad - Vadodara Expressway</p>	<p>Question ID : 11622 Correct Option : A.दिल्ली - मेरठ एक्सप्रेसवे A.Delhi - Meerut Expressway Chosen Option : D.अहमदाबाद - वडोदरा एक्सप्रेसवे D.Ahmedabad - Vadodara Expressway Marks : 0.0</p>
<p>Q.95 Which of the following is closest in meaning to the word: Redundant</p> <p>Options: A.Take back B.Useless C.Return D.Exchange</p>	<p>Question ID : 11625 Correct Option : B.Useless Chosen Option : D.Exchange Marks : 0.0</p>
<p>Q.96 A, B, C आणि D प्रत्येकी 1 वाक्य बोलतात. A म्हणतो, "आज सोमवार आहे". B म्हणतो, "आज सोमवार आहे". C म्हणतो, "आज मंगळवार नाही आहे". D म्हणतो, "C नेहमी सत्य बोलतो". जर कोणताही माणूस सत्य बोलत नाही तर</p> <p>A, B, C and D speak 1 sentence each. A says, "today is Monday". B says, "today is Monday". C says, "today is not Tuesday". D says, "C always speaks the truth". If no person is speaking the truth, then</p> <p>Options: A.आज सोमवार आहे A.Today is Monday B.आज मंगळवार आहे B.Today is Tuesday C.आज सोमवार ही नाही आणि मंगळवार ही नाही C.Today is neither Monday nor Tuesday D.आज कोणता दिवस आहे हे आपण ठरवू शकत नाही D.We cannot determine what day is today</p>	<p>Question ID : 11626 Correct Option : B.आज मंगळवार आहे B.Today is Tuesday Chosen Option : D.आज कोणता दिवस आहे हे आपण ठरवू शकत नाही D.We cannot determine what day is today Marks : 0.0</p>
<p>Q.97 If the Overtaking site Distance (OSD) on a highway is 250m, the desirable and minimum length of overtaking zone will be</p> <p>Options: A.500m and 1000m respectively B.1000m and 500m respectively C.750m and 1250m respectively D.1250m and 750m respectively</p>	<p>Question ID : 11639 Correct Option : D.1250m and 750m respectively Chosen Option : A.500m and 1000m respectively Marks : 0.0</p>
<p>Q.98 What is maximum allowable percentage of moment redistribution in RCC beam?</p> <p>Options: A.5 percent B.15 percent C.30 percent D.45 percent</p>	<p>Question ID : 11646 Correct Option : C.30 percent Chosen Option : B.15 percent Marks : 0.0</p>
<p>Q.99 Which one of the following type of cross – section can develop plastic moment of resistance, but have inadequate plastic hinge rotation capacity for formation of a plastic mechanism?</p> <p>Options: A.Plastic B.Compact C.Semi – compact D.Slender</p>	<p>Question ID : 11648 Correct Option : B.Compact Chosen Option : B.Compact Marks : 2.0</p>

Q.100 A soil has the co-efficient of permeability of 4.75×10^{-2} mm/sec at 30 degree celsius. Its value at 27 degree celsius will be (take the co-efficient of viscosity at 30 degree celsius and 27 degree celsius as 8.0 milli poise and 8.5 milli poise respectively)

- Options:**
- A. 4.27×10^{-2} mm/sec
 - B. 4.47×10^{-2} mm/sec
 - C. 4.67×10^{-2} mm/sec
 - D. 5.04×10^{-2} mm/sec

Question ID :	11649
Correct Option :	B. 4.47×10^{-2} mm/sec
Chosen Option :	D. 5.04×10^{-2} mm/sec
Marks :	0.0



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