



SHRI VISHWAKARMA SKILL UNIVERSITY

(A State Skill University, setup by an Act of Legislature in 2016)

RECRUITMENT EXAMINATION

Advertisement No. HVSU/18/ENT /007 dt. 07/11/2018

SKILL I INSTRUCTOR (CIVIL)

A

Max. Marks : 90 Marks

Time : 90 Minutes

SKILL INSTRUCTOR (CIVIL)

1. The units of dynamic viscosity is

- (A) metre^2 per sec
- (B) kg sec/metre
- (C) Newton-sec per metre^2
- (D) Newton-sec per metre

2. If mercury in a barometer is replaced by water, the height of 3.75 cm of mercury will be following cm of water

- (A) 51 cm
- (B) 50 cm
- (C) 52 cm
- (D) 52.2 cm

3. Meta centric height is given as the distance between

- (A) the center of gravity of the body and the Meta center
- (B) the center of gravity of the body and the center of buoyancy
- (C) the center of gravity of the body and the center of pressure
- (D) center of buoyancy and Meta centre

4. Bernoulli's equation assumes that

- (A) fluid is viscous
- (B) fluid is homogeneous
- (C) flow is steady
- (D) All of these

5. A piezometer opening in pipes measure
- (A) velocity head
 - (B) static pressure
 - (C) total pressure
 - (D) negative static pressure
6. Reynold number is the ratio of initial force and
- (A) viscous force
 - (B) Elasticity
 - (C) gravitational force
 - (D) surface tension
7. Detailed plotting is generally done by
- (A) Radiation
 - (B) Traversing
 - (C) Resection
 - (D) All of the above
8. In leveling operation
- (A) When the instrument is being shifted, the staff must not be moved
 - (B) When the staff is being carried forward, the instrument must remain stationary
 - (C) Both (a) and (b)
 - (D) Neither (a) nor (b)

9. Error due to inclination of line of collimation in levelling across a river can be eliminated by
- (A) Reversion
 - (B) Reciprocal ranging
 - (C) Reciprocal levelling
 - (D) Keeping level in the middle
10. Working principle of GPS is
- (A) Triangulation
 - (B) Trilateration
 - (C) Traversing
 - (D) None of the above
11. Bowditch rule is applied to
- (A) An open traverse for graphical adjustment
 - (B) A closed traverse for adjustment of closing error
 - (C) Determine the effect of local attraction
 - (D) None of the above
12. Back bearing of a line is equal to
- (A) Fore bearing $\pm 90^\circ$
 - (B) Fore bearing $\pm 180^\circ$
 - (C) Fore bearing $\pm 360^\circ$
 - (D) Fore bearing $\pm 270^\circ$

13. Closed contours of decreasing values towards their centre, represent
- (A) A hill
 - (B) A depression
 - (C) A saddle or pass
 - (D) A river bed
14. A bending moment may be defined as:
- (A) Arithmetic sum of the moments of all the forces on either side of the section
 - (B) Arithmetic sum of the forces on either side of the section
 - (C) Algebraic sum of the moments of all the forces on either side of the section
 - (D) None of these
15. Maximum deflection of a
- (A) Cantilever beam carrying a concentrated load W at its free end is $WL^3/3EI$
 - (B) Simply supported beam carrying a concentrated load W at mid-span is $WL^3/48EI$
 - (C) Cantilever beam, carrying a uniformly distributed load over span is $WL^3/8EI$
 - (D) All the above
16. In a loaded beam, the point of contraflexure occurs at a section where
- (A) Bending moment is minimum
 - (B) Bending moment is zero or changes sign
 - (C) Bending moment is maximum
 - (D) Shearing force is maximum

17. The Castigliano's second theorem can be used to compute deflections
- (A) In statically determinate structures only
 - (B) For any type of structure
 - (C) At the point under the load only
 - (D) For beams and frames only
18. Live load
- (A) varies in magnitude
 - (B) varies in position
 - (C) is expressed as uniformly distributed load
 - (D) All the above
19. The maximum axial load which is just sufficient to keep a column in a small deflected shape, is called
- (A) crippling load
 - (B) buckling load
 - (C) critical load
 - (D) all the above.
20. The most economical section for a column, is
- (A) rectangular
 - (B) solid round
 - (C) flat strip
 - (D) tubular section

21. In a mortar, the binding material is •

- (A) Cement
- (B) Sand
- (C) Surkhi
- (D) Cinder

22. The effective weld length of a fillet weld should not be less than

- (A) Two times the weld size
- (B) Four times the weld size
- (C) Six times the weld size
- (D) Weld size

23. Which of the following equipments is useful in determining spot speed in traffic engineering

- (A) Enoscope
- (B) Periscope
- (C) Tachometer
- (D) All of the above

24. The process of passing water through beds of granular materials, is called

- (A) Screening
- (B) Sedimentation
- (C) Filtration
- (D) None of these

25. The bacteria which require free oxygen for their survival, are called
- (A) Aerobic bacteria
 - (B) Anaerobic bacteria
 - (C) Facultative bacteria
 - (D) None of these
26. Normal values of overflow rate for plain sedimentation tank, is
- (A) 250 to 500 liters/hr/m²
 - (B) 500 to 750 liters/hr/m²
 - (C) 750 to 1000 liters/hr/m²
 - (D) 1000 to 1250 liters/hr/m²
27. The asbestos cement sewers are
- (A) Light in weight
 - (B) Not structurally strong to bear large compressive stress
 - (C) Susceptible to corrosion by sulphuric acid
 - (D) All the above
28. Pick up the incorrect statement from the following:
- (A) The process of decomposing the organic matter under controlled anaerobic conditions, is called sludge digestion
 - (B) Sludge digestion is carried out in sludge tank
 - (C) The gases produced in sludge digestion process, contain 75% carbon dioxide
 - (D) The gases produced in sludge digestion process, contain 75% methane

29. The Chezy's constant C in the formula $V = C \sqrt{RS}$ depends upon
- (A) Size of the sewer
 - (B) Shape of the sewer
 - (C) Roughness of sewer surface
 - (D) All the above
30. When the width of car parking space and width of street are limited, generally preferred parking system is
- (A) Parallel parking
 - (B) 45° angle parking
 - (C) 65° angle parking
 - (D) 90° angle parking
31. Design of horizontal and vertical alignments, super-elevation, sight distance and grades, is worst affected by
- (A) width of the vehicle
 - (B) length of the vehicle
 - (C) height of the vehicle
 - (D) speed of the vehicle
32. Penetration test on bitumen is used for determining its
- (A) Grade
 - (B) Viscosity
 - (C) Ductility
 - (D) Temperature susceptibility

33. The Young's Modulus of steel is

- (A) 150 kN/mm^2
- (B) 200 kN/mm^2
- (C) 250 kN/mm^2
- (D) 275 kN/mm^2

34. The steel generally used in R.C.C. work, is

- (A) Stainless
- (B) Mild steel
- (C) High carbon steel
- (D) High tension steel

35. The live load to be considered for an accessible roof, is

- (A) Nil
- (B) 75 kg/m^2
- (C) 150 kg/m^2
- (D) 200 kg/cm^2

36. A T-beam behaves as a rectangular beam of a width equal to its flange if its neutral axis

- (A) Remains within the flange
- (B) Remains below the slab
- (C) Coincides the geometrical centre of the beam
- (D) None of these

37. The platform at the end of a series of steps, is known as

- (A) Stop
- (B) Relief
- (C) Landing
- (D) Rest

38. As the percentage of steel increases

- (A) Depth of neutral axis decreases
- (B) Depth of neutral axis increases
- (C) Lever arm increases
- (D) Lever arm decreases

39. The under surface of an arch is called,

- (A) Soffit
- (B) Intrados
- (C) Haunch
- (D) Back

40. Which of the following sights will be applicable for a change point?

- (A) Back sight
- (B) Intermediate sight and fore sight
- (C) Fore sight
- (D) Back sight and fore sight

41. Pick up the correct statement from the following:
- (A) Plain cement concrete is equally strong in compression as well as in tension
 - (B) Slump test is performed to check concrete strength
 - (C) Curing of concrete is done for proper compaction of cement
 - (D) Fineness modulus is the index number expressing the relative sizes of both coarse and fine aggregates
42. The constituent of cement which is responsible for all the undesirable properties of cement is
- (A) Di-calcium silicate
 - (B) Tri-calcium silicate
 - (C) Tri-calcium aluminate
 - (D) Tetra calcium alumino ferrite
43. Which of the following stresses is used for identifying the quality of structural steel?
- (A) Ultimate stress
 - (B) Yield stress
 - (C) Proof stress
 - (D) None of the above
44. The minimum water content at which the soil retains its liquid state and also possesses a small shearing strength against flowing, is known
- (A) Liquid limit
 - (B) Plastic limit
 - (C) Shrinkage limit
 - (D) Permeability limit.

45. Under-reamed piles are generally

- (A) Driven piles
- (B) Bored piles
- (C) Precast piles
- (D) All the above

46. The water content of soil is defined as the ratio of

- (A) Volume of water to volume of given soil
- (B) Volume of water to volume of voids in soil
- (C) Weight of water to weight of air in voids
- (D) Weight of water to weight of solids of given mass of soil.

47. A partially saturated soil is classified as

- (A) One phase soil
- (B) Two phase soil
- (C) Three phase soil
- (D) Four phase soil.

48. The equation $\tau = C + \sigma \tan \phi$ is given by

- (A) Rankine
- (B) Coulomb
- (C) Culaman
- (D) Mohr.

49. Pick up the correct statement from the following:

- (A) If the ratio of depth to width is less than 2, it is shallow foundation
- (B) If the ratio of depth to width is more than 2, it is deep foundation
- (C) If the length is large as compared to width, it is a strip foundation
- (D) All of these

50. The member placed horizontally to support common rafter of a sloping roof is

- (A) Purlin
- (B) Cleat
- (C) Batten
- (D) Strut

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General English

- Q51. Choose the one which best expresses the meaning of the given word:
REVERIE
(A) Determination (B) Day-dream
(C) Reality (D) Nightmare
- Q52. Find out which part of the sentence has an error:
He jumped down (a)/ after shouted a warning (b)/ to those standing below.(c)
/ No error(d)
(A) (a) (B) (b)
(C) (c) (D) (d)
- Q53. Pick the right meanings of the following idiom and phrase:
Take the wind out of sails
(A) To cause harm to another
(B) To live in great comfort and luxury
(C) To rob of an advantage
(D) To be in a dilemma
- Q54. Choose the one which is most opposite in meaning to the given word:
Ecstasy
(A) Hate (B) Agony (C) Languor (D) Fatigue
- Q55. Fill in the blank with suitable article:
We saw _____ heritage building.
(A) an (B) a (C) the (D) no article
- Q56. Fill in the blank:
We must endeavour to _____ the miseries of poor.
(A) Augment
(B) elaborate
(C) discourage
(D) mitigate
- Q57. **Directions:** In question given below, the first and the last sentences are numbered 1 and 6. Remaining sentences are named P, Q, R and S. These four sentences are not given in their proper order. Read the sentences and find out which of the four combinations is correct:
1: The accident occurred in just a moment.
P: The cyclist was blinded by a bullock cart moving slowly in the opposite direction.
Q: The cyclist from the main road did not notice it.
R: The result was a head-on-collision.

S: A speeding car came from a side road.

6: The cyclist was thrown a few feet away.

(A) PQSR (B) SRPQ (C) PRSQ (D) SQPR

Q58. Choose the correct option to complete each sentence:

The people next door _____ a lot of noise until past midnight.

(A) were making

(B) was making

(C) are making

(D) have making

Q59. Pick out the most effective word from the given options to fill in the blank to make the sentence meaningfully complete:

This book is quite similar _____

(A) with the "Treasure Island"

(B) of that film we saw at school

(C) to the one I read last week

(D) than a story told by our teacher

Q60. **Directions: Read the following passage to answer the given question based on it-**

Speech is great blessings but it can also be great curse, for while it helps us to make our intentions and desires known to our fellows, it can also if we use it carelessly, make our attitude completely misunderstood. A slip of the tongue, the use of unusual word, or of an ambiguous word, and so on, may create an enemy where we had hoped to win a friend. Again, different classes of people use different vocabularies, and the ordinary speech of an educated may strike an uneducated listener as pompous. Unwittingly, we may use a word which bears a different meaning to our listener from what it does to men of our own class. Thus speech is not a gift to use lightly without thought, but one which demands careful handling. Only a fool will express himself alike to all kinds and conditions to men.

The best way to win a friend is to avoid

(A) irony in speech

(B) pomposity in speech

(C) verbosity in speech

(D) ambiguity in speech

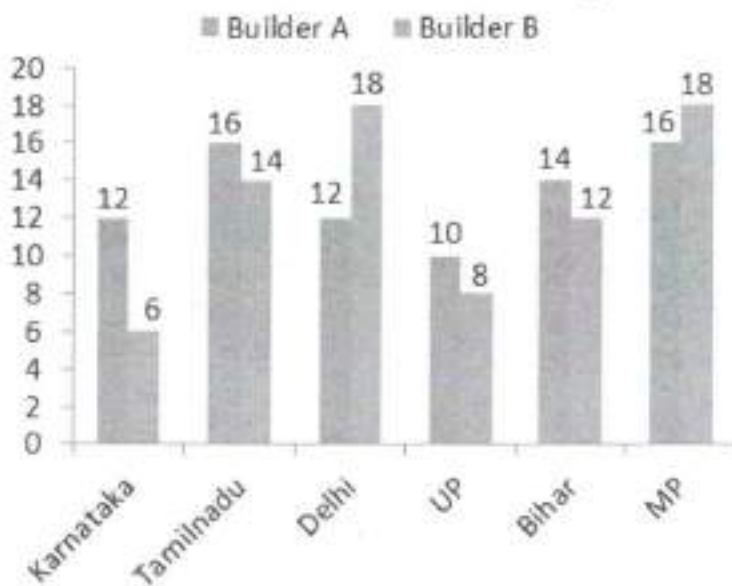
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General Aptitude

- Q61. The distance between N and P is 50 m and that between Q and R is 40m. Q is to the west of R, which is to the east of N at a distance of 70m. P is to the west or northwest or north of Q. If Q is to the south of P, what is the distance between P and Q?
- (A) 40 m (B) 35 m (C) 80 m (D) 20 m
- Q62. **Crow : Carrion :: Leech :** ?
- (A) Bugs (B) Blood (C) Meat (D) Bones
- Q63. Cheenu has a family of eight members. Bablu is the eldest male member of the family. Haryali is the daughter-in-law of Neelu and sister-in-law of Sonu and Anku. Apart from Cheenu and Bablu, only Sonu is a male member of the family. Anku is the aunt of Cheenu's two daughters Saba and Daya. **Who is the husband of Haryali?**
- (A) Bablu
(B) Sonu
(C) Cheenu
(D) Cannot be determined
- Q64. In a class of 35 students, Kunal is placed seventh from the bottom whereas Sonali is placed ninth from the top. Pulkit is placed exactly in between the two. What is Kunal's position from Pulkit?
- (A) 9 (B) 10 (C) 11 (D) 13

Direction: Study the following bar chart and table chart carefully and answer the question given beside.

Following bar graph shows the amount of money allocated (in lakh) to 2 builders by six different state governments for various government projects such as House building, Road development, Bridge development and Metro projects.



The table shows the spending of each builder in various development aspects every year.

Project	Builder A	Builder B
House	15%	35%
Roads	35%	20%
Bridge	20%	30%
Metro	30%	15%

- Q65. Find the ratio of amount allocated to builder B for House development in the states Karnataka, Tamilnadu, Delhi and UP together to the amount allocated to builder A for House development in the states Karnataka, Tamilnadu, Delhi and UP together.
- (A) 75 : 161 (B) 61 : 175
(C) 161 : 75 (D) 161 : 175
- Q66. Complete the series: 649.6875, 433.125, 173.25, 49.5, ?, 2
- (A) 13 (B) 10
(C) 11 (D) 15
- Q67. In a coded message, SLOW MOVE, GET BACKWARDS, FIRE AWAY is written as VFMD ZMWE, BEN PCTLDXOXU, QHOE CDCI. Based on this coding scheme, spot the code for following word:
- FIERCE**
- (A) QHEHTE

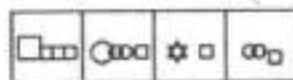
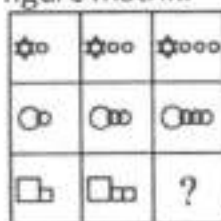
- (B) QHEEOT
(C) QHETOE
(D) QHEOTE

Q68. In the following question, a statement is given followed by some conclusions. Without resolving anything yourself, choose the conclusion which logically follows from the statement:

Statement: Every museum displays interesting pieces.

- (A) Interesting pieces are only in the museum.
(B) Museums were meant for artifacts only.
(C) No museum is without display pieces.
(D) Some museums have no visitors.

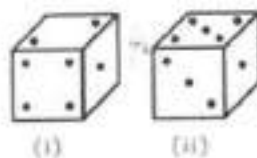
Q69. Select a suitable figure from the four alternatives that would complete the figure matrix.



(1) (2) (3) (4)

- (A) 1 (B) 2 (C) 3 (D) 4

Q70. Two positions of a cube are shown below. When the number 4 will be at the bottom, then which number will be at the top?



- (A) 3 (B) 5 (C) 6 (D) None

General Knowledge

- Q71. What is the theme of the 2018 World Soil Day (WSD)?
(A) Be the Solution to Soil Pollution
(B) Healthy soils for a healthy life
(C) Soils & Pulses: Symbiosis for life
(D) Soil day for future life
- Q72. Which place of Haryana was the political as well as social working place of freedom fighter Lala Lajpat Rai ?
(A) Ambala
(B) Jhajjar
(C) Jind
(D) Hisar
- Q73. Who has been appointed the new Chief Economic Advisor (CEA)?
(A) Pranab Bardhan
(B) Jayati Ghosh
(C) Jagdish Bhagwati
(D) Krishnamurthy Subramanian
- Q74. The glory and strength of which of the cities of Haryana was discussed in the book written by Chinese traveller Huen-Tsang?
(A) Thaneshwar
(B) Patiala
(C) Mahendragarh
(D) Kurukshetra
- Q75. Ibn Batuta was a traveler from which among the following current nations?
(A) Algeria
(B) Morocco
(C) Tunisia
(D) Libya
- Q76. Kartarpur corridor, which was recently approved by Union Cabinet, is located in which district of Punjab?
(A) Bathinda
(B) Gurdaspur
(C) Ferozepur
(D) Amritsar
- Q77. India's longest single lane steel cable suspension bridge was inaugurated in which state?

- (A) Manipur
- (B) Gujrat
- (C) Maharashtra
- (D) Arunachal Pardesh

Q78. Reduced number and size of RBCs and decreased amount of hemoglobin is a characteristic of

- (A) Pernicious anaemia
- (B) Megaloblastic anaemia
- (C) Microcytic anaemia
- (D) All of these

Q79. Sultan Azlan Shah Cup is related to which among the following Sports?

- (A) Badminton
- (B) Hockey
- (C) Table Tennis
- (D) Golf

Q80. Which Indian sportsperson has been appointed as UNICEF India's first-ever Youth Ambassador?

- (A) Hima Das
- (B) Amit Panghal
- (C) Neeraj Chopra
- (D) Bajrang Punia

SKILL INSTRUCTOR (CIVIL) - SECTION V

- Q81. The BIOS is the abbreviation of _____.
- A) Basic Input Output System
 - B) Best Input Output System
 - C) Basic Input Output Symbol
 - D) Base Input Output System
- Q82. What is a compiler?
- A) A compiler does a conversion line by line as the program is run
 - B) A compiler converts the whole of a higher level program code into machine code in one step
 - C) A compiler is a general purpose language providing very efficient execution
 - D) None of the above
- Q83. Integrated Circuits (Ics) are related to which generation of computers?
- A) First generation
 - B) Second generation
 - C) Third generation
 - D) Fourth generation
- Q84. Quick launch icon is a part of
- A) tool bar
 - B) menu bar
 - C) task bar
 - D) title bar
- Q85. Interface used by windows is called
- A) menu driven interface
 - B) command driven interface
 - C) graphical user interface
 - D) prompt interface
- Q86. Internet is governed by
- A) I & B
 - B) IETF
 - C) Inter NIC
 - D) None of these
- Q87. MIME stands for
- A) Multipurpose Internet Mail Extensions
 - B) Multipurpose Internet Mail Email
 - C) Multipurpose International Mail Entity
 - D) Multipurpose International Mail End

Q88. In MS Word , Ctrl + Y is the short cut key for:

- A) Undo the last action
- B) Paste the selected text
- C) Cut the selected text
- D) Redo the last action

Q89. In the formula, which symbol specifies the fixed columns or rows?

- A) \$
- B) *
- C) %
- D) &

Q90. In Microsoft PowerPoint the entry effect as one slide replaces another in a show is called

- A) animation
- B) slide transition
- C) custom animation
- D) preset animation

SVSU Recruitment Examination 2019
Loaded Key Sheet for : 18 - Skill Instructor (Civil) , Set Code : A

Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key
1 ✓	C	21 ✓	A	41 ✓	D	61 ✓	A	81 ✓	A
2 ✓	A	22 ✓	B	42 ✓	C	62 ✓	B	82 ✓	B
3 ✓	A	23 ✓	A	43 ✓	B	63 ✓	C	83 ✓	C
4 ✓	D	24 ✓	C	44 ✓	A	64 ✓	B	84 ✓	C
5 ✓	B	25 ✓	A	45 ✓	B	65 ✓	C	85 ✓	C
6 ✓	A	26 ✓	B	46 ✓	D	66 ✓	C	86 ✓	D
7 ✓	A	27 ✓	D	47 ✓	C	67 ✓	D	87 ✓	A
8 ✓	C	28 ✓	C	48 ✓	B	68 ✓	C	88 ✓	D
9 ✓	C	29 ✓	D	49 ✓	D	69 ✓	A	89 ✓	A
10 ✓	A	30 ✓	A	50 ✓	A	70 ✓	A	90 ✓	B
11 ✓	B	31 ✓	D	51 ✓	B	71 ✓	A	91	X
12 ✓	B	32 ✓	A	52 ✓	B	72 ✓	D	92	X
13 ✓	B	33 ✓	B	53 ✓	C	73 ✓	D	93	X
14 ✓	C	34 ✓	B	54 ✓	B	74 ✓	A	94	X
15 ✓	D	35 ✓	C	55 ✓	B	75 ✓	B	95	X
16 ✓	B	36 ✓	A	56 ✓	D	76 ✓	B	96	X
17 ✓	B	37 ✓	C	57 ✓	D	77 ✓	D	97	X
18 ✓	D	38 ✓	B	58 ✓	A	78 ✓	C	98	X
19 ✓	D	39 ✓	A	59 ✓	C	79 ✓	B	99	X
20 ✓	D	40 ✓	D	60 ✓	D	80 ✓	A	100	X