



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 IINSTRUCTOR (Automotive Studies / Robotics)



A

Max. Marks : 90 Marks

Time : 90 Minutes

1.	The measurement of thermodynamic property known as temperature is known as (a) Zeroth law of thermodynamics (b) First law of thermodynamics (c) Second law of thermodynamics (d) none of above
2.	When heat is transferred from one particle of hot body to another by actual motion of the heated particles, it is referred to as heat transfer by (a) Conduction (b) Convection (c) Radiation (d) conduction and convection
3.	Thermal conductivity of water in general with rise in temperature (a) increases (b) decreases (c) remains constant (d) may increase or decrease depending on temperature
4.	Which of the following has maximum value of thermal conductivity (a) aluminium (b) steel (c) brass (d) copper
5.	Joule sec is the unit of (a) universal gas constant (b) kinematic viscosity (c) thermal conductivity (d) Planck's constant

6.	The unit of force in S.I. units is (a) kilogram (b) newton (c) watt (d) dyne
7.	The product of either force of couple with the arm of the couple is called (a) resultant couple (b) moment of the forces (c) resulting couple (d) moment of the couple
8.	A hot short metal is (a) brittle when cold (b) brittle when hot (c) brittle under all conditions (d) ductile at high temperature
9.	Resilience of a material is important, when it is subjected to (a) combined loading (b) fatigue (c) thermal stresses (d) shock loading.
10.	The fatigue life of a part can be improved by (a) electroplating (b) polishing (c) coating (d) shot peening
11.	Cold working

	(a) increases the fatigue strength (b) decreases the fatigue strength (c) has no influence on fatigue strength (d) alone has no influence on fatigue strength
12.	Shear stress theory is applicable for (a) ductile materials (b) brittle materials (c) elastic materials (d) all of the above
13.	The statement that molecular weights of all gases occupy the same volume is known as (a) Avogadro's hypothesis (b) Dalton's law (c) Gas law (d) Law of thermodynamics
14.	Which of the following quantities is not the property of the system (a) pressure (b) temperature (c) specific volume (d) heat
15.	Mixture of ice and water form a (a) closed system (b) open system (c) isolated system (d) heterogeneous system
16.	Which of the following items is not a path function (a) heat

	(b) work (c) kinetic energy (d) thermal conductivity.
17.	Brayton cycle consists of following four processes (a) two isothermals and two isentropics (b) two isentropics and two constant volumes (c) two isentropics, one constant volume and one constant pressure (d) two isentropics and two constant pressures
18.	The following cycle is used for air craft refrigeration (a) Brayton cycle (b) Joule cycle (c) Reversed-Brayton cycle (d) Bell-Coleman cycle
19.	Which of the following is a lower pair (a) ball and socket (b) piston and cylinder (c) cam and follower (d) (a) and (b) above
20.	Pulley in a belt drive acts as (a) cylindrical pair (b) turning pair (c) rolling pair (d) sliding pair
21.	Transmission of power from the engine to the rear axle of an automobile is by means of (a) compound gears (b) worm and wheel method

	(c) Hooke's joint (d) crown gear
22.	In multi-V-belt transmission, if one of the belt is broken, we have to change the (a) broken belt (b) broken belt and its adjacent belts (c) all the belts (d) there is no need of changing any one as remaining belts can take care of transmission of load
23.	ABC analysis deals with (a) analysis of process chart (b) flow of material (c) ordering schedule of job (d) controlling inventory costs money
24.	The main advantage of line organisation is its (a) effective command and control (b) defined responsibilities at all levels (c) rigid discipline in the organisation (d) all of the above.
25.	Acceptance sampling is widely used in (a) batch production (b) job production (c) mass production (d) all of the above
26.	The term 'value' in value engineering refers to (a) total cost of the product (b) selling price of the product

	(c) utility of the product (d) manufactured cost of the product
27.	Merit Rating is the method of determining worth of (a) a job (b) an individual employee (c) a particular division in workshop (d) machine
28.	The performance of a specific task in CPM is known as (a) dummy (b) event (c) activity (d) contract
29.	Railway rails are normally made of (a) mild steel (b) alloy steel (c) high carbon (d) tungsten steel
30.	Basic constituents of Monel metal are (a) nickel, copper (b) nickel, molybdenum (c) zinc, tin, lead (d) nickel, lead and tin
31.	An engineer's hammer is made of (a) cast iron (b) forged steel (c) mild steel

	(d) high carbon steel
32.	Materials after cold working are subjected to following process to relieve stresses (a) hot working (b) tempering (c) normalising (d) annealing
33.	Vanadium in high speed steels (a) promotes decarburisation (b) provides high hot hardness (c) forms very hard carbides and thus increases wear resistance (d) promotes retention of austenite
34.	Which of the following is the binding material in cemented carbides (a) cobalt (b) nickel (c) vanadium (d) iron
35.	Connecting rod is usually made of (a) aluminium (b) low carbon steel (c) medium carbon steel (d) high carbon steel
36.	The percentage of carbon in low carbon steel is (a) 0.05% (b) 0.15%

	(c) 0.3% (d) 0.5%
37.	The hardness of steel increases if it contains (a) austenite (b) martensite (c) pearlite (d) cementite
38.	Preheating is essential in welding (a) cast iron (b) high speed steel (c) all non-ferrous materials (d) all of the above
39.	In a throttling process (a) steam temperature remains constant (b) steam pressure remains constant (c) steam enthalpy remains constant (d) steam entropy remains constant
40.	Adiabatic process is (a) essentially an isentropic process (b) non-heat transfer process (c) reversible process (d) constant temperature process
41.	The compressor performance at higher altitude compared to sea level will be (a) same (b) higher (c) lower

	(d) dependent on other factors
42.	A carburettor is used in a (a) Petrol engine (b) Steam engine (c) Diesel engine (d) All of these.
43.	Losses in a centrifugal compressor are due to (a) inlet losses (b) impeller channel losses (c) diffuser losses (d) all of the above
44.	Open cycle gas turbine works on (a) Brayton or Atkinson cycle (b) Rankine cycle (c) Carnot cycle (d) Ericsson cycle
45.	Liquids transmit pressure equally in all the directions. This is according to (a) Boyle's law (b) Archimedes principle (c) Pascal's law (d) Newton's formula
46.	Barometer is used to measure (a) pressure in pipes, channels etc. (b) atmospheric pressure (c) very low pressure (d) difference of pressure between two points

47.	Which of the following instruments is used to measure flow on the application of Bernoulli's theorem (a) Venturimeter (b) Orifice plate (c) nozzle (d) all of the above.
48.	A body floats in stable equilibrium (a) when its metacentric height is zero (b) when the metacentre is above center of gravity (c) when its e.g. is below its center of buoyancy (d) metacentre has nothing to do with position of center of gravity for determining stability
49.	one cubic meter of water weighs (a) 100 litres (b) 250 litres (c) 500 litres (d) 1000 litres
50.	The specific heat of water is (a) 1.817 (b) 2.512 (c) 4.187 (d) none of above

•
General English

Q51. Choose the one which best expresses the meaning of the given word:

ACCRUE

(A) Accumulate

(B) Accommodate

(C) Suffice

(D) Grow

Q52. Find out which part of the sentence has an error:

You must list in detail (a)/ all your qualifications and (b)/ experiences in your application.(c)/ No error.(d)

(A) (a)

(B) (b)

(C) (c)

(D) (d)

Q53. Pick the right meanings of the following idiom and phrase:

To throw down the glove

(A) To give a challenge

(B) To accept immediately

(C) To be hopeless

(D) To be in dilemma

Q54. Choose the one which is most opposite in meaning to the given word:

Fatuous

(A) Crafty

(B) Frugal

(C) Sensible

(D) Inane

Q55. Fill in the blank with suitable article:

Can I have _____ dictionary kept on your desk?

(A) an

(B) a

(C) the

(D) no article

Q56. Fill in the blank:

It depends on whether we get _____ down by failures or use them as stepping-stones.

(A) wretched

(B) bogged

(C) squirted

(D) eluded

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: It was dark and it was raining heavily.

P: With a sigh of relief, the tiger crawled under the thatched roof and lay down by the door.

Q: He was wet and cold and his home was far away.

R: An old tiger ran through the rain looking for shelter.

S: While hurrying to his shelter he saw an old hut.

6: Except for the sound of the rain, all was quiet.

(A) RPSQ (B) SQRP (C) RQSP (D) SPRQ

Q58. Choose the correct option to complete the sentence given below:

The clerk _____ the money from the bank by one o'clock.

- (A) has withdrawn
- (B) will have withdrawn
- (C) is withdrawing
- (D) had been withdrawing

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

Those who persist in the endeavor at long last triumph _____ the odds of life.

- (A) over (B) on (C) upon (D) about

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

Organizations are institutions in which members compete for status and power. They compete for resource of the organization, for example finance to expand their own departments, for career advancement and for power to control the activities of others. In pursuit of these aims, groups are formed and sectional interests emerge. As a result, policy decisions may serve the ends of political and career systems rather than those of the concern. In this way, the goals of the organization may be displaced in favour of sectional interests and individual ambition. These preoccupations sometimes prevent the emergence of organic systems. Many of the electronic firms in the study had recently created research and development departments employing highly qualified and well paid scientists and technicians. Their high pay and expert knowledge were sometimes seen as a threat to the established order of rank, power and privilege. Many senior managers had little knowledge of technicality and possibilities of new developments and electronics. Some felt that close cooperation with the experts in an organic system would reveal their ignorance and show their experience was now redundant.

"Organic system" as related to the organization implies its

- (A) growth with the help of expert knowledge
- (B) growth with input from science and technology
- (C) steady all around development
- (D) natural and unimpeded growth

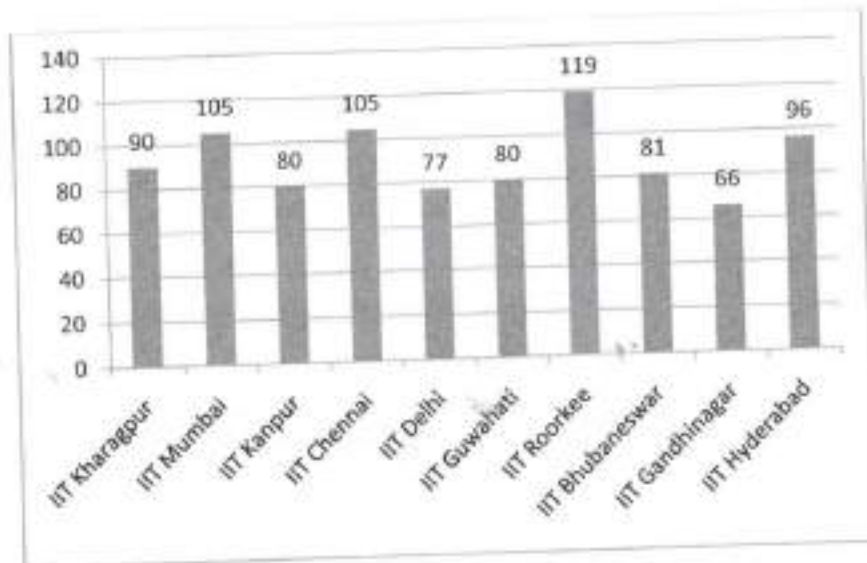
General Aptitude

Q61. In a code language, 'mok dan sil' means 'big bad wrestler', 'fit kon dan' means 'wrestler is good', 'cold tir fit' means 'he is new'. Which word stands for 'is' in that language?

- (A) Fit (B) Kon (C) Dan (D) Mok

Direction: Read the information carefully and answer the questions given below.

Number of students selected through campus placements from ten IIT colleges



Percentage of student who did not get campus placements

College	Percentage
IIT Kharagpur	75
IIT Mumbai	65
IIT Kanpur	68
IIT Chennai	62.5
IIT Delhi	65
IIT Guwahati	66.7
IIT Roorkee	66
IIT Bhubaneswar	55
IIT Gandhinagar	56
IIT Hyderabad	68

Stream wise classification of student in each college (percentage)

College	Civil engg.	Mechanical engg.	Chemical engg.	Computer engg.
IIT Kharagpur	30	20	35	15
IIT Mumbai	20	24	27	29
IIT Kanpur	22	26	32	20
IIT Chennai	34	26	22	18
IIT Delhi	18	24	27	31
IIT Guwahati	25	22	27	26
IIT Roorkee	26	28	20	26
IIT Bhubaneswar	16	34	32	18
IIT Gandhinagar	22	26	20	32
IIT Hyderabad	28	16	22	34

- Q62. In which among the following colleges is the number of Mechanical engineering students the second highest?
 (A) IIT Kharagpur (B) IIT Mumbai
 (C) IIT Roorkee (D) IIT Chennai
- Q63. A child is looking for his father. He went 90 meters in the east before turning to his right. He went 20 meters before turning to his right again to look for his father at his uncle's place 30 meters from this point. His father was not there. From there, he went 100 meters to his north before meeting his father in a street. How far did the son meet his father from the starting point?
 (A) 80 m (B) 100 m (C) 140 m (D) 180 m
- Q64. Complete the series: 3, 3, 9, 15, 33, ?
 (A) 50 (B) 55
 (C) 63 (D) 67
- Q65. Charminar is related to India in the same way as Sphinx is related to
 (A) England
 (B) Canada
 (C) Egypt
 (D) Vatican
- Q66. Pointing towards a lady in a photograph a girls says Vinita's grandmother is the mother-in-law of this lady how is the lady in the photograph related to Vinita?
 (A) Mother (B) Sister (C) Aunt (D) Grandmother

Q67. In a row of boys, A is fifteenth from the left and B is fourth from the right. There are three boys between A and B. C is just left of A. What is C's position from the right?

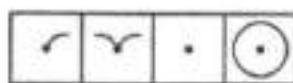
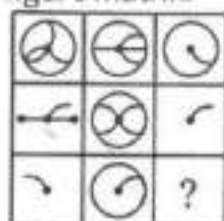
- (A) 9th (B) 10th (C) 12th (D) 13th

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 - Most articles in the shop are expensive.

- (A) There are no cheap articles available in that shop.
 (B) Handmade articles in that shop are cheap.
 (C) There are cheap articles also in that shop.
 (D) Handmade articles in the shop are expensive.

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 dice are shown below. Identify the number at the bottom when the top is '3'?



(i)



(ii)

- (A) 2 (B) 4 (C) 5 (D) 6

71.	Who is 46 th Chief Justice of India? (a) Ranjan Gogoi (b) Dipak Misra (c) Uday Umesh Lalit (d) Dhananjaya Y. Chandrachud
72.	Who is the partner country of Suraj Kund kraft Mela 2019? (a) Thailand (b) Pakistan (c) Sri Lanka (d) Japan
73.	The members of the Rajya Sabha are elected by (a) the people (b) Lok Sabha (c) elected members of the legislative assembly (d) elected members of the legislative council
74.	The present Lok Sabha (2014-2019) is the (a) 13th Lok Sabha (b) 14th Lok Sabha (c) 15th Lok Sabha (d) 16th Lok Sabha
75.	The refineries are Mathura, Digboi and Panipat are set up by (a) Indian Oil Corporation Ltd. (b) Hindustan Petroleum Corporation Ltd. (c) Bharat Petroleum Corporation Ltd. (d) Crude Distillation unit of Madras Refineries Ltd.
76.	The watershed between India and Myanmar is formed by (a) the Naga hills (b) the Garo hills (c) Khasi hills (d) the Jaintia hills
77.	Which of the following is used in pencils? (a) Graphite

	(b) Silicon (c) Charcoal (d) Phosphorous
78.	Which is the highest gallantry award in India? (a) Param Vishishtat Seva Medal (b) Param Vir Chakra (c) Kirti Chakra (d) Vir Chakra
79.	In which state the largest Ashok Chakra build? (a) Rajasthan (b) Delhi (c) Gujarat (d) Haryana
80.	The first Indian to receive Noble Prize in Literature was (a) Mother Teresa (b) C. V. Raman (c) Rabindranath Tagore (d) Sarojini Naidu

SKILL INSTRUCTOR (Automotive Studies / Robotics) – SECTION V

Q81. One millisecond is

- A) 1 second
- B) 10th of a seconds
- C) 1000th of a seconds
- D) 10000th of a seconds

Q82. A set of flip flops integrated together is called ____

- A) Counter
- B) Adder
- C) Register
- D) None of the above

Q83. A storage area used to store data to a compensate for the difference in speed at which the different units can handle data is

- A) Memory
- B) Buffer
- C) Accumulator
- D) Address

Q84. Computer interface that is used by DOS is called

- A) menu driven interface
- B) command driven interface
- C) design interface
- D) system interface

Q85. Add new computer hardware option exists in

- A) main menu
- B) status bar
- C) task bar
- D) control panel

Q86. Which one of the following protocol is not used in internet?

- A) HTTP
- B) DHCP
- C) DNS
- D) None of the mentioned

Q87. SMTP is a simple

- A) TCP protocol
- B) TCP/ IP protocol
- C) IP protocol
- D) None of the above

Q88. Values of normal margin (in inches) in ms-word is

- A) left-0.5, right-0.5, top-0.5, bottom-0.5
- B) left-0.75, right-0.75, top-0.5, bottom-0.5
- C) left-1, right-1, top-1, bottom-1
- D) left-1.5, right-1.5, top-1, bottom-1

Q89. What does COUNTA () function do?

- A) counts cells having alphabets
- B) counts empty cells
- C) counts cells having number
- D) counts non-empty cells

Q90. In Microsoft PowerPoint in order to see all the slides on one screen use

- A) view, slide sorter
- B) view, slide
- C) view, master
- D) view, slide show

SVSU Recruitment Examination 2019

Loaded Key Sheet for : 17 - Skill Instructor (Automotive Studies / Robotics) , Set Code : A

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

SVSU Recruitment Examination 2019

Loaded Key Sheet for : 17 - Skill Instructor (Automotive Studies / Robotics) , Set Code : B

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