AFCAT 2 2015 QUESTION PAPER

INSTRUCTIONS:

- 1. Total No. of Questions-100. Each Question is of three marks.
- 2. One mark will be deducted for every wrong answer.
- 3. Do not write or mark on the Question Paper.
- 4. Question Paper to be returned before leaving the Exam Hall.

DIRECTIONS (Qs. 1-4) : Which word or words explains the meaning of the following idioms:

1. A fool's errand

2.

- (a) A blunder (b) An impossible task
- (c) A useless undertaking (d) None of these
- To flog a dead horse
- (a) To act in a foolish way
- (b) To waste one's efforts
- (c) To revive into rest in an old subject
- (d) To revive old memories
- 3. The alpha and the omega
 - (a) The begining and the end
 - (b) A nice act
 - (c) The starts and the moon
 - (d) Very costly
- 4. A bull in a china shop
 - (a) A person who is very ugly but loves the beautiful things of life
 - (b) A person who takes a sadistic delight in harming innocent people
 - (c) A person who becomes too excited where no excitement is warranted
 - (d) A rough and clumsy person at a place where skill and care are required.

DIRECTIONS (Qs. 5-8) :*Choose the word that best defines the given phrases:*

- 5. To hold something in leash
 - (a) To restrain (b) To disappoint
 - (c) To dismiss (d) To discourage
- 6. To talk through one's hat
 - (a) To speak fluently (b) To talk nonsense
 - (c) To talk wisdom
- (d) To speak at random
- 7. To throw up the sponge
 - (a) To surrender or give up a contest
 - (b) To offer a challenge
 - (c) To become utterly disappointed
 - (d) To maintain grit and enthusiasm until the end
- 8. To get into hot waters
 - (a) To be impatient
 - (b) To suffer a huge financial loss
 - (c) To get into trouble
 - (d) To be in a confused state of mind

DIRECTIONS (Qs. 9-13): Choose the correctly spelt word :

- 9. (a) Dolorous (b) Dolurous
 - (c) Doloreus (d) Delorious

10.	(a)	Condiut	(b)	Conduit
	(c)	Connduit	(d)	Condeut
11.	(a)	Gragarious	(b)	Gragerious
	(c)	Gregarious	(d)	Grigareous
12.	(a)	Intrensic	(b)	Intrinsic
	(c)	Entrensic	(d)	Entrinsec
13.	(a)	Sepulchral	(b)	Sepalchrle
	(c)	Sepalchral	(d)	Sepulchrle

DIRECTIONS (Qs. 14-16) : *Read the following passage carefully and answer the questions given below it :*

Patience is better than wisdom; An ounce of patience is worth a pound of brains. All men praise patience, but few can practise it. It is a medicine which is good for all diseases, but it is not every garden that grows the herbs to make it with. Many people are born crying, live complaining and die disappointed. They think every other person's burden to be light and their own feathers to be heavy as lead, and yet if the truth were known, it is their fancy rather than their fate that makes things go so hard with them. Many would be well off than what they think of.

- 14. Which of the following is the most suitable explanation to the author's remark that "anounce of patience is worth a pound of brains"?
 - (a) Wisdom can only be attained by practising patience
 - (b) Patience comes first wisdom next
 - (c) Patience is essential for every achievement
 - (d) Without patience wisdom cannot be used in like property
- 15. Which one is the most likely explanation, among the following, of the author's metaphorical statement that "It is not every garden that grows the herbs to make it with"?
 - (a) Patience is a must for solving all our problems in life
 - (b) Patience is a rare herb that cures all diseases
 - (c) Patience is virtue of a highest order
 - (d) It is only a small number of people that are found observing patience in life
- 16. The writer's remarks, "They think every person's burden to be light and their own feathers to be as heavy as lead" is very significant. It means
 - (a) They are always worried and dejected
 - (b) They consider their own problems to be difficult to solve as compared with problems of other people
 - (c) They feel that they alone face serious problems while others have a nice time
 - (d) They remain very much worried about their own problem.

TIME LIMIT : 2 HOURS

DIRECTIONS (Qs. 17-20): Choose the word which is nearest in
meaning to the given word :

17.	Anathema		
	(a) Religious Chant	(b) Pun	
	(c) Musical Subject	(d) Curse	
18.	Debilitate		
	(a) Weaken	(b) Attack	
	(c) Surmount	(d) Destroy	
19.	Penchant		
	(a) Liking	(b) Eagerness	
	(c) Disability	(d) Keenness	
20.	Nebulous		
	(a) Tiny	(b) Vague	
	(c) Insignificant	(d) Inadequate	
DIR	RECTIONS (Qs. 21-24) :	Choose the word which is nearly	v
oppe	osite in meaning to the gi	ven word :	
21.	Insolent		
	(a) Sutten	(b) Affable	
	(c) Determined	(d) Rich	
22.	Sceptic		
	(a) Cryptic	(b) Believer	
	(c) Support	(d) Eminent	
22	Defractory		

23. Refractory

- (a) Refreshing (b) Burdensome (d) Manageable (c) Privileged 24. Acrimonious (a) Legal (b) Severe
 - (c) Cursive (d) Harmonious

DIRECTIONS (Qs. 25-30) : Select the most appropriate word from the options against each number:

Life is an (25) series of challenges and opportunities to be seized. You have to plan for exercising the right career choices and (26)the right opportunities. Planned (27) rather than a hasty decision is $(\underline{28})$ as far as your career is concerned. You need to $(\underline{29})$ what occupational groups, (30) and type of organisation are suitable for you.

25.	(a)	enticing	(b)	exciting			
	(c)	encharming	(d)	enhancing			
26.	(a)	catching	(b)	offsetting			
	(c)	grabbing	(d)	conceiving			
27.	(a)	delay	(b)	hindrance			
	(c)	application	(d)	execution			
28.	(a)	desirable	(b)	deciphered			
	(c)	inevitable	(d)	acceptable			
29.	(a)	check	(b)	classify			
	(c)	divide	(d)	analyse			
30.	(a)	specifications	(b)	limitations			
	(c)	qualifications	(d)	identification			
DIR	DIRECTIONS (Qs. 31-65) : Choose the most appropriate answer:						

- 31. Todar Mal was associated with in Akbar's durbar.
 - (a) Music (b) Literature
 - (c) Finance (d) Law Reforms
- 32. Mahatma Gandhi left South Africa to return to India in
 - (a) 1911 (b) 1915
 - (c) 1917 (d) 1919

33.	Who was the Viceroy when the Simon Commission visited india?					
	(a) Lord Chelmsford	(b)	Lord Reading			
	(c) Lord Irwin		Lord Wellington			
34.	Think-tank of Government					
54.	Commission on 01 January		a that replaced r lanning			
	(a) NITI Vakya		NITI Dharma			
	(c) NITI Vajpayee	(d)	NITI Aayog			
35.	What is the name of 'Innov	vative C				
55.	Rail Budget 2015 to promot					
	(a) Rail Tech		Sankalp			
	(c) Kayakalp	()	Navachar			
36.	Animals active at night are					
	(a) Diurnal		Nocturnal			
	(c) Parasites		Nacto-diurnal			
37.	Which city will host the 202					
	(a) Gold Coast, Australia					
	(c) Lusaka, Zambia	(d)	Nairobi, Kenya			
38.	(c) Lusaka, Zambia Serena Williams defeated		to win the women's			
	singles title of Australian O	pen 201	5.			
	(a) Venus Williams	(b)	Sania Mirza			
	(c) Maria Sharapova	(d)	Ana Ivanovic			
39.	Lines joining places of equa	al tempe	erature are called			
	(a) Isotherms		Isohyets			
	(c) Isomers	(d)	Isobars			
40.	Sir C.V. Raman was awar	ded No	oble Prize for his work			
	connected with which of	the foll	lowing phenomenon of			
	radiation?					
	(a) Scattering	(b)	Diffraction			
	(c) Interference	· · ·	Polarization			
41.	Natural radioactivity was d					
	(a) Marie Curie		Earnest Rutherford			
	(c) Henry Bacquerel					
42.	Recently tested Agni-V miss	ile is ca	pable of carrying nuclear			
	payload of					
	(a) 1000 Kg.		1500 Kg.			
	(c) 2000 Kg.	(d)				
43.	How many days moon take	s to rev	olve around the earth?			
	$\sim 2c^{1}$		27 ¹			
	(a) $26\frac{1}{3}$	(b)	$27\frac{1}{3}$			
	(c) $28\frac{2}{3}$	(d)	$29\frac{1}{2}$			
	3		Z			
44.	In which atmospheric layer a located?	are the c	communication satellites			
	(a) Stratosphere	<i>(</i> b)	Ionosphere			
	(c) Troposphere		Mesosphere			
45.	Vinod Mehta an eminent Ind					
т <u></u> .	in-chief of 'Outlook' publi					

- name of (a) Lucknow Boy A Memoir
- (b) One Life is Not Enough
- (c) Accidental Prime Minister
- (d) The Substance and the Shadow
- 46. The book, 'Born Again on the Mountain' is authored by
 - (a) Pooja Rani
 - (b) Arunima Sinha (c) Bachendri Pal (d) Urbashi Lal

- Which of the following Asian countries celebrates its 47. Independence Day on 4th February? (a) Sri Lanka (b) Bahrain (c) Cambodia (d) Bangladesh Who has been awarded the DadaSaheb Phalke Award for 48 the year 2014? (a) Pran (b) Shashi Kapoor (c) Dilip Kumar (d) Amitabh Bachhan 49. The Russian name of INS Vikramaditya is (a) Admiral Groshkov (b) Admiral Gorbachev Admiral Nakhimov (c) (d) Admiral Petr Bezobrazov The present chairman of ISRO is 50. (b) Shailesh Navak (a) MYS Prasad (c) AS Kiran Kumar (d) K Radhakrishnan Indian-American music composer, Ricky Kej has won the 51. Grammy Award for the album In the Lonely Hour (b) Morning Phase (a) (c) Beyonce (d) Winds of Samsara 52. A train covers a distance of 12 km in 10 min. If it takes 6 sec to pass a telegraph post, the length of the train is (a) 90m (b) 100m (c) 120m (d) 140m 53. The average weight of 50 boys in a class is 45 kg. When one boy leaves the class, the average reduces by 100g. Find the weight of the boy who left the class. (a) 50 kg. (b) 50.8 kg (d) 49.9 kg (c) 49 kg 54. A train 150 m long is running with a speed of 68 km/h. In what time will it pass a man who is running at 8 km/h in the same direction in which the train is going? (a) 8 sec (b) 8.5 sec (c) 9 sec (d) 9.5 sec The price of an item is decreased by 25%. What percent 55. increase must be done in new price to get the original price? (b) $43\frac{3}{4}\%$ (a) $33\frac{1}{3}\%$
 - (c) $55\frac{2}{3}\%$ (d) $65\frac{1}{4}\%$
 - A sum was invested for 3 years at simple interest at a certain 56. rate. Had it been invested at 4% higher rate of interest, it would have fetched ₹ 600 more. The sum is (a) ₹4000 (b) ₹ 1050

(c)
$$₹5000$$
 (d) $₹5150$

A's salary is 50% more than B's. How much percent is B's 57. salary less than A's?

(a)
$$63\frac{1}{4}\%$$
 (b) $43\frac{1}{4}\%$
(c) $53\frac{1}{3}\%$ (d) $33\frac{1}{2}\%$

A man lent a sum of money at the rate of simple interest of 58. 4%. If the interest for 6 years is ₹ 340 less than the principal, the principal is

1	. 1		
(a)	₹ 500	(b)	₹ 520

(d) ₹580 (c) ₹540

- 59. A does $\frac{1}{4}$ as much work as B and C does $\frac{1}{2}$ as much work as A and B together. If C alone can finish the work in 40 days then together all will finish the work in
 - (b) $13\frac{1}{3}$ days (a) 30 days
 - (c) 15 days

(d) 20 days

- 60. In a mixture of 35 litres, the ratio of milk and water is 4:1. If 7 litres of water is added to the mixture, the ratio of milk and water of the new mixture will be
 - (b) 1:2 (a) 2:1 (c) 4:3(d) 5:4
- 61. Anmol sold two items for ₹ 1000 each. On one he gained 10% and on other, he lost 10%. How much did he gain or lose in the whole transaction?
 - (a) profit 0.95% (b) loss 1%
 - (c) profit 10% (d) loss 10%
- A can do $\frac{1}{2}$ of a piece of work in 8 days while B can do the $\frac{1}{3}$ 62.

of the same work in 8 days. In how many days can both do it together?

- (a) 9.6 days (b) 10.5 days
- (c) 1.2 days (d) 16 days
- 63. A boat travels upstream from B to A and downstream from A to B in 3 hours. If the speed of the boat in still water is 9 km/h and the speed of the current is 3 km/h, the distance between A and B is
 - (a) 9km (b) 10km
 - (c) 11 km (d) 12km
- If the selling price is doubled, the profit triples. The profit 64. percent is
 - (a) $66\frac{1}{3}\%$ (b) 150% (d) 90% (c) 100%
- A steamer moves with a speed of 4.5 km/h in still water to a 65. certain upstream point and comes back to the starting point in a river which flows at 1.5 km/h. The average speed of steamer for the total journey is
 - (a) 12 km/h (b) 9 km/h
 - (d) 4 km/h(c) 6 km/h

DIRECTIONS (Qs. 66-70) : In each of the following questions find out the alternative which will replace the question mark. 66.

Zenith : Nadir :: ?:? (a) Indigent : Poverty (b) Zeal: Eagerness (c) Success : Peak (d) Genuine : Phony

(b)

Encumber : Burden

Jealousy : Respect

Bad : Immoral

- Graceful : Clumsy :: ?:? 67
 - (a) Horror : Sympathy
 - (c)
- 68.
- (d) 69.

 - (b) Tenacious : Practicality
 - (c) Arbitrary: Whimsical
 - (d) Extemporaneous: Predictability

- (b) Laugh: Cry
- Recapitulate : Synopsis (d)
- Blizzard : Freeze :: ?:?
- Insult: Humiliation (a)
- (c) Caution : Careless
- Capriciousness : Reliability :: ?:?
- (a) Heated : Boiling

- (a) Telepathy: Emotions (b) Radiology: Sound
- (c) Mycology : Fossils (d) Entomology: Insects

DIRECTIONS (Qs. 71-75): In each of the following questions, four words have been given out of which three are alike in some manner, while the fourth one is different. Choose the word which is different from the test:

- 71. (a) Brass
- (b) (c) Silver (d) 72. (a) Documentary (b)(c) Commentary (d) 73. (a) Deccan
- Chhota Nagpur (c) 74.
 - Niagara (a) (c) Kempty

Feature (b) Kaas

Bronze

Puppet

We Indians

Steel

- (d) Nanda Devi
- Alamere (b)
- (d) Andes

(b)

- 75. (a) Small Betravals
 - (c) Shooting from the Hip (d) Surviving Men

DIRECTIONS (Qs. 76-80) : Each of the following questions consists of five figures marked 1, 2, 3, 4 and 5 called the Problem Figures followed by four other figures marked (a), (b), (c) and (d) called the answer. Select a figure from amongst the answer figures which will continue the some series as established by the five Problem Figures:

76. **Problem Figures:** × ☆ Δ OIA × O Δ X ☆ = C SS С = 0 ×Δ 0 × 0 ☆0 Δ (1)(2)(3)(4)(5) **Answer Figures:** 0 0 Δ 10 Δ $|\Delta|$ 0 0 # # 1 × ☆ \$ × × ☆ × (b) (c) (d) (a) 77. **Problem Figures:** C S С C S X Т SI0 S C (3) (1)(2)(4)(5)Answer Figures: 0 ſ (a) (b) (c) (d) 78. **Problem Figures:** (2)(3)(4)(5)(1)



DIRECTIONS (Qs. 81-85): Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams (a), (b), (c) and (d). You have to indicate the group of elements which correctly fits into the diagrams.

Which of the following diagrams indicates the best relation 81. between Females, Doctors, and Patients?



82. Which of the following diagrams indicates the best relation between Doctors, Teachers and Engineers?



83. Which of the following diagrams indicates the best relation between Steel, Wood and Building Material?



84. Which of the following diagrams indicates the best relation between Males, Fathers and Human Being?



85. Which of the following diagrams indicates the best relation between Detectives, Spies and Men with Beards?



DIRECTIONS (Qs. 86-90) : In each problem, out of the four figures marked (a) (b), (c) and (d), three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.



DIRECTIONS (Qs. 91-95) : Each of the following questions consists of two sets of figures. Figures 1, 2, 3 and 4 constitute the Problem Set while figures (a), (b), (c) and (d) constitute the Answer Set. There is a definite relationship between figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer Set that would replace the question mark (?) in fig (4).





DIRECTIONS (Qs. 96-100): In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern.



98.

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ANSWER KEY									
1. (c)	2. (b)	3. (a)	4. (d)	5. (a)	6. (b)	7. (a)	8. (c)	9. (a)	10.(b)
11.(c)	12.(b)	13.(a)	14.(d)	15.(d)	16.(c)	17.(d)	18.(a)	19.(a)	20.(b)
21.(b)	22.(b)	23.(d)	24.(d)	25.(b)	26.(c)	27.(d)	28.(a)	29.(d)	30.(a)
31.(c)	32.(b)	33.(c)	34.(d)	35.(c)	36.(b)	37.(b)	38.(c)	39.(a)	40.(a)
41.(c)	42.(b)	43.(b)	44.(b)	45.(a)	46.(b)	47.(a)	48.(b)	49.(a)	50.(c)
51.(d)	52.(c)	53.(d)	54.(c)	55.(a)	56.(c)	57.(d)	58.(a)	59.(b)	60.(a)
61.(b)	62.(a)	63.(d)	64.(c)	65.(d)	66.(d)	67.(b)	68.(a)	69.(d)	70.(d)
71.(c)	72.(b)	73.(d)	74.(d)	75.(b)	76.(a)	77.(a)	78.(a)	79.(d)	80.(c)
81.(c)	82.(d)	83.(a)	84.(c)	85.(d)	86.(c)	87.(b)	88.(d)	89.(a)	90.(b)
91.(d)	92.(b)	93.(a)	94.(c)	95.(d)	96.(d)	97.(c)	98.(d)	99.(b)	100.(c)

- 1. (c) The idiom "a fool's errand" means an attempt to do something that has no chance of success.
- 2. (b) 'To flog a dead horse' means to waste effort on something where there is no chance of succeeding.
- 3. (a) 'The alpha and the omega' means the beginning and the end.
- (d) 'A bull in a China shop' means a person who breaks things or who often makes mistakes or causes damage in situations that requires careful thinking or behaviour.
- 5. (a) 'To hold something in leash' means to provide very little freedom to someone.
- 6. (b) "To talk through one's hat" means to talk nonsense.
- 7. (a) 'To throw up the sponge' means to give up a contest or to acknowledge defeat.
- 8. (c) 'To get into hot waters' means to be in trouble or a difficult situation.
- 9. (a) 'Dolorous' is the correctly spelt word which means feeling or expressing great sorrow or distress.
- 10. (b) 'Conduit' is the correctly spelt word which means a channel for conveying water or other fluid.
- 11. (c) 'Gregarious' is the correctly spelt word which means fond of company or sociable.
- 12. (b) 'Intrinsic' is the correctly spelt word which means belonging naturally or essential.
- 13. (a) 'Sepulchral' is the correctly spelt word which means relating to a tomb.
- 17. (d) Anathema means a formal curse by a pope or a council of the church. Therefore, 'curse' is the nearest meaning or synonym of Anathema.
- (a) Debilitate means to make someone weak and infirm. Therefore, weaken is the nearest in meaning to Debilitate.
- 19. (a) Penchant means a strong or habitual liking for something. Therefore, liking is the nearest in meaning to Penchant.
- 20. (b) Nebulous means vague or ill-defined. Therefore, vague is the closest in meaning to Nebulous.
- (b) Insolent means showing a rude and arrogant behaviour or lack of respect. Affable means good natured or easy to talk to. Therefore, Affable is the nearly opposite meaning of Insolent.
- 22. (b) Sceptic means a person who questions or doubts accepted opinions. Therefore, Believers which means a person who believes in the truth or existence of something is the nearly opposite in meaning to Sceptic.

- 23. (d) Refractory means stubborn or unmanageable. Therefore, manageable is nearly the opposite in meaning to Refractory.
- (d) Acrimonious means full of anger and bitter feelings. Whereas, Harmonious means friendly and free from disagreement. Therefore, Harmonious is the antonym of Acrimonious.
- 31. (c) Raja Todar Mal was the finance minister of the Mughal empire during Akbar's reign.
- 32. (b) Mahatma Gandhi returned to India from South Africa in 1915.
- (c) Lord Irwin was the viceroy of India when Simon Commission visited India.
- (d) NITI Aayog is the Government of India think tank established by PM Narendra Modi to replace Planning Commission.
- (c) 'Kayakalp' is the innovative council of Indian Railways for innovation, technology development and manufacturing.
- 36. (b) Animals active at night are called Nocturnal.
- 37. (b) Durban, South Africa will host the 2022 Commonwealth Games.
- 38. (c) Serena Williams won the 2015 Australian Open (Women's singles) by defeating Maria Sharapova.
- 39. (a) Isotherm is a line on the map connecting points having the same temperature at a given time.
- 40. (a) Sir C. V. Raman's ground breaking work in the field of light scattering for which he was awarded the 1930 Nobel Prizes for physics.
- 41. (c) Henry Becquerel is associated with the discovery of Radioactivity.
- 43. (b) The Moon taken $27\frac{1}{3}$ days to revolve around the earth.
- 46. (b) Arunima Sinha wrote the book "Born again on the mountain", which was launched by PM Narendra Modi in 2014.
- 47. (a) Sri Lanka celebrates its Independence Day of 4th February.
- 48. (b) Indian actor and producer Shashi Kapoor was awarded the DadaSaheb Phalke Award for the year 2014.
- 49. (a) Admiral Gorshkov is the Russian name of INS Vikramaditya.

- 50. (c) A. S. Kiran Kumar is the current chairman of Indian Space Research Organisation (ISRO).
- 51. Ricky Kej won the Grammy at the 57th Annual Grammy (d) awards for his album Winds of Samsara, a collaboration with South African flautish Wouter Kellerman.
- 52. (c) Let length of the train is x. Distance = 12 km = 12000 m $Time = 10 min = 10 \times 60 = 600 sec$

Speed of train =
$$\frac{12000}{600}$$
 = 20 m / sec

when train passes a telegraph post it covers distance equal to its length. using distance = time \times speed

 $x = 6 \times 20 = 120 \text{ m}$ 53. (d) Let the weight of the boy who left the class is x. Total weight = $50 \times 45 = 2250$ kg when one boy left the class total weight is (2250 - x)and no. of student left is 49. According to question -

$$\frac{2250 - x}{49} = \left(45 - \frac{100}{1000}\right) \text{kg}$$
$$\frac{2250 - x}{49} = 44.9$$
$$2250 - x = 2200.1$$
$$x = 2250 - 2200.1$$
$$x = 49.9 \text{ kg}$$

54. (c) Relative speed between man and train = 68 - 8

$$60 \text{ km/h} = 60 \times \frac{5}{10} \text{ m/sec} = \frac{50}{3} \text{ m/s}$$

time taken to cross the man = $\frac{150}{50/3} = 9$ sec

55. (a) Let the price of item be $\gtrless 100$. price after 25% decrement = 75₹ Now % change to achieve 100 ₹ again (100 55)

$$= \frac{(100 - 75)}{75} \times 100$$
$$= \frac{25}{75} \times 100 = 33\frac{1}{3}\%$$

Let the sum be 'P' and rate be 'r' simple interest (S.I.) 56. (c) P.r.t

...(1)

$$= \frac{1}{100}$$

S.I. = $\frac{P.r.3}{100} = \frac{3 Pr}{100}$

again.

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 $(S.I.+600) = \frac{P.(r+4).3}{100}$ putting S.I. value from eq. ...(1) $\frac{3\,\mathrm{Pr}}{100} + 600 = \frac{3\,\mathrm{P}(\mathrm{r}+\,4)}{100}$ $\frac{3\,\mathrm{Pr}}{100} + 600 = \frac{3\,\mathrm{Pr}}{100} + \frac{12\,\mathrm{P}}{100}$ $600 = \frac{12 P}{100}$ P=5000₹

(d) Let salary of B is 100 ₹ 57. So salary of A is 150 ₹ The percentage B's salary is less than to A's

salary =
$$\frac{150 - 100}{150} \times 100 = \frac{50}{150} \times 100 = 33\frac{1}{3}\%$$

(a) Let the principle amount be 'P' 58.

S.I. =
$$\frac{P.r.t}{100}$$

According to question

$$P-340 = \frac{P.4Q}{100}$$
$$P-340 = \frac{QP}{25}$$
$$P-\frac{QP}{25} = 340 \implies \frac{17P}{25} = 340$$

$$P = 500 \notin$$

60.

61.

59. (b) Let A, B and C can work x, y, z units work daily According to question -2x = y + z

$$2z = x + y$$

total work = No. of days taken by 'c' × unit work of 'c
= $40z$

time taken when A, B and C working together

$$= \frac{\text{total work}}{\text{total unit work daily}} = \frac{40z}{x+y+z}$$

as $x + y = 2z$ so,
time taken $= \frac{40z}{2z+z} = \frac{40z}{3z} = \frac{40}{3} = 13\frac{1}{3}$ days.
(a) In 35 litre mixture
water is $= 35 \times \frac{1}{5} = 7$ litre
milk is $= 35 - 7 = 28$ litre
after adding 7 litre of more water, water is $7 + 7 = 14$ litre.
so ratio of milk and water in new mixture is $= \frac{28}{14} = \frac{2}{1} = 2 : 1$
(b) Cost price of item where Anmol gained 10% is $= \frac{1000}{1.1}$
 $= \frac{10000}{11} \notin$
Cost price of item where Anmol lost 10% is $= \frac{1000}{0.9}$
 $= \frac{10000}{9} \notin$
Amount Anmol received is $= 1000 + 1000 = 2000 \notin$
Amount Anmol paid is $= \frac{10000}{11} + \frac{10000}{9}$
 $= 10000 \times \frac{20}{99} \notin$
profit or loss $\% = \left(\frac{2000 - 10000 \times \frac{20}{99}}{10000 \times \frac{20}{99}}\right) \times 100$

$$= \left(\frac{1 - \frac{100}{99}}{\frac{100}{99}}\right) \times 100 = -1\%$$

(-ve sign represents the loss)

62. (a) If A is doing half of the work is 8 days then he will complete it in 16 days.

If B is doing $\frac{1}{3}$ rd of the work in 8 days then he will complete it is $8 \times 3 = 24$ days.

days required = $\frac{16 \times 24}{16 + 24}$ (when A & B both are working)

$$=\frac{16\times24}{40}=9.6$$
 days

63. (d) speed of boat in upstream = 9 - 3 = 6 km/h speed of boat in downstream = 9 + 3 = 12 km/h According to question –

$$\frac{AB}{6} + \frac{AB}{12} = 3$$
$$\frac{3AB}{12} = 3$$

$$AB = 12 \text{ km}$$

64. (c) Profit (P) = Selling price (S) – Cost price (C) P = S - C...(1)

 $\frac{|\mathbf{P} = \mathbf{S} - \mathbf{C}|}{\text{According to question} - 3\mathbf{P} = 2\mathbf{S} - \mathbf{C}}$...(1) Subtracting eq (1) from eq (2) $2\mathbf{P} = \mathbf{S}$

Putting S in eq
$$(1)$$

$$P = 2P - C \implies C = P$$

profit
$$\% = \frac{(\text{Selling price } - \text{Cost price})}{\text{Cost price}} \times 100$$

....(3)

$$=\left(\frac{S-C}{C}\right) \times 100 = \frac{(2P-P)}{P} \times 100 = 100\%$$

65. (d) Speed of steamer in down stream = 4.5 + 1.5 = 6km speed of steamer in up stream = 4.5 - 1.5 = 3km let the distance be x. time taken in down stream = x / 6 time taken in up stream = x / 3

Avg. speed =
$$\frac{\text{total distance}}{\text{total time}}$$

$$\frac{x+x}{\frac{x}{6}+\frac{x}{3}} \Rightarrow \frac{2x}{(3x/6)}$$

=4 km/h

- 66. (d) First is the antonym of second.
- 67. (b) Both are opposites.
- 68. (a) First is the cause of second.
- (d) Capricious behaviour is not characterized by reliability. Extemporaneous actions are not characterized by predictability.

- 70. (d) Pedagogy is art of teaching and Entomology is study of insects.
- 71. (c) Silver -All except silver are alloys.
- 72. (b) Puppet because except that all are media and News related.
- 73. (d) Nanda devi All except Nanda devi are plateaus.
- 74. (d) Andes All except Andes are waterfalls.
- 75. (b) We Indians All except We Indians are the books written by 'Shobhaa De'.

76.



Same shifting pattern is following in fig (3) & fig (4) so option (a) is correct



Interchanging Position with reverse in direction Same pattern is following in fig (3) & fig (4) so for fig (5) option (a) is correct.

79. (d)

78.

(a)

 Fig (1)
 Fig (2)

longer needle is rotating 135° clockwise and shorter needle is rotating 45° anticlockwise. Same pattern is following in fig (3) and fig (4). So for fig (5) option (d) is correct.



In the figures 'x' is converting into '+' sign and there is a interchange of circled design in clock-wise direction. Same pattern is following in fig (3) and fig (4) also. So for figure (5) option (c) is correct.

81. (c)



Femals, Doctors and Patients are connected to some extent so option (c) is correct.

82. (d) Doctors, Teachers and Engineers are different to each other in their profession. So option (d) is correct.



83. (a) Steel and wood both are used as building material and there is no relation between steel and wood .



84. (c) All father are males but some human beings may not be males or father. So option (a) is correct.



85 (d) Detectives, spies can be both men or women. Men detectives or spies can be both men with beard or men with beard so option (d) is correct.



- 86. (c) In figure (a), (b), (d) marked angles are equal. Only in option (c) marked angles are not equal.
- 87. (b) All the three leaves (except dark one) are placed right angled to each other in fig (a), (c) and (d). So option (b) is different from others.
- 88. (d) In option (a), (b) and (c), the first dot (.) is adjucent to darken triangle and second dot (.) is one step behind. So option (d) is different.
- 89. (a) Option (a) is different from others.

92.

93.

94.

(c)

90. (b) In option (a), (c) and (d) dots (.) are placed on the midpoints of the edges but in option (b) dots are placed at the corners.







Rotation of dark leaf is 135° (clock wise). Rotation of white leaf in 135° (anticlockwise). So for fig (3) option (a) is correct.



according to above explaination option (c) is correct.

- 95. (d) From figure (1) to (2)
 - symbol moves 90° clockwise
 - → symbol moves 90° anticlockwise
 - G → symbol moves 180° clockwise or anticlockwise
 - symbol moves 180° clockwise or anticlockwise and is replaced by another symbol.
 sequence occurs from figure (3) to (4) so, (d) is the correct answer.